

Sequence Range: 1 to 4512

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                    50
AGATCTCTAT GAAAAATGGC AAAATCAACA ATAATCCCTT GGCTATATGG TGGTATTTCT
TCTAGAGATA CTTTTTACCG TTTTAGTTGT TATTAGGGAA CCGATATACC ACCATAAAGA

                    100
GTTAAAGAGT ACTTATGGGT AGATTTTTAA GCTTCATAGA TTCTTTGTGC AAAAAAAATT
CAATTTTCAC TGAATACCCA TCTAAAAAAT CGAAGTATCT AAGAAACAGC TTTTTTTTAA

                    150
ACTTTGTACA TTTTAGTGGG GTTATTTTAA TTTCCCAATT GAACAAAACC ATATATTGAT
TGAACATGTT AAAATCAGCT CAATAAATTT AAAGGGTTAA CTGTGTTTGG TATATAACTA

                    200
GAAATTCGCA AATGCAATCC AAAAAATAAT ATGTTCCTCT CTTTGGTTA GCTTTTAAC
CTTTAAGCGT TTACGTTAGG TTTTATTTA TACAAGTGGA GAAAACCAAT CGAAAATTGA

                    250
AAACATGCGT TTT----- TTCCAGCTAG TACGAGTCTC TATATATAAA CTTTCTTAAT
TTTGTACGCA AAA----- AAGTCGATC ATGCTCAGAG ATATATATTT GAAAGAATTA

                    300
ATCGCTAACA ATTTACTTCA AGTTTGTAA GTGATAAGTG AAAGACCGTA TATACATACA
TAGCGATTGT TAAATGAAGT TCAACATTA CACTATTAC TTCTGGCAT ATATGTATGT

                    350
CATGTTAATC AACTGATAAC CTTTGTGCTT CGTGTGTCTA GTTACTAGTC AACCATCAAA
GTACAAATTA TTGACTATTG GAAACACGGA GCACACAGAT CAATGATCAG TTGGTAGTTT

                    400
CGTGCATGAT GCTGTTTTTC TTAGAGTACT ATTTGTGTGT TATATATAAC TAAACATAAA
GCACGACTTA CGACAAAAAG AATCTCATGA TAACAACACA ATATATATTG ATTTGTATTT

                    450
CAATTTGCTA TTATGATATA AACATAGAAT TTTCAAGCAA TGATATGTTT AGATGTTTTG
GTTAAACGAT AATACTATAT TTGTATCTTA AAGTTCGTT ACTATACAAA TCTACAAAAG

                    500
TATAAATATT CCATAAATAG TAGACACCCA TATATACACA AACATGAATT CTACCTGAGG
ATATTTATAA GGTATTTATC ATCTGTGGGT ATATATGTGT TTGTACTTAA GATGGACTCC

                    550
AGAAACACAT AGATGTTCAA ATTAATAAT AACCTATATA TGAAACTCTT AAAGTAAGTA
TCTTTGTGTA TCTACAAATT TAATTTATTA TTGGGATATT ACTTTTGAGA TTTCATTACT

                    600
ATACGAAATA AAAATTTATC CTTTAAATAA CATATAACAT ATATATCAAC TTTAATTGGT
TATGCTTTAT TTTTAAATAG GAAATTTATT GTATATTGTA TATATAGTTG AAATTAACCA

                    650
AATTGTATCA CAAGAGCCAA TTATTTGGTG ACTGTATCAC ACGTGCTTAA AGAGAGCGTG
TTAACATAGT GTTCTCGGTT AATAAACCCAC TGACATAGTG TGCACGAATT TCTCTCGCAC

                    700
GGAATGAAG TAAAGAAGAA TAAAGAAGCA GAGAGATGGG CTAGAATGA GAAACACAC
CCTTACTTTC ATTTCTTCTT ATTTCTTCTG CTCTCTACCC GATCTTTACT CTTTGTGTG

                    750
CAAACCCATA CCTCACCCCT ACACATTTCT TATCTTTTGC TCTCATAGA TTCCATTGAT
GTTTGGGATT GGAGTGGGAG TGTGTAAGA ATAGAAAACG AGAGTTATCT AAGGTAACCTA

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Fig. 1a

00000000.02000

950  
TCAAAACAAA ATTTTCATTA AGATTTCCACA ACCTCCACAC ACTTCCAAAC ACAATTAAAG  
AGTTTTGGTTT TAAAGTAAT TCTAAAGTGT TGGAGGTGTG TGAAGGTTTG TGTTAATTTTC

1000  
AGAGGAAAAA GAATCAATAA CCCTATAAAT AAAAATCAG ACAACAGAA GTTTCCTCTT  
TCTCCTTTTT CTTAGTTATT GGGATATTTA TTTTITAGTC TGTITGTCTT CAAAGAGAAA

1050  
CTTCTCCTT AAGCTAGTAC CTTTGTCTT TGAAATTAGS GTTAATTTCT TTTTTCCTT  
GAAGAAGGAA TTCGATCATG GAAAACAAGA ACTTTAATCC CAATTAAAGA AAAAAGGTTT

1100  
TACCATCAAT TCTCCAGACC ATAAAAACTC AAAAAGATCA GATCTTTCCT CTGAAAAAGA  
ATGTTAGTTA AGAGGTCTGG TATTTTGTAG TTTTCTAGT CTAGAAAGGA GACTTTTCT

1150  
GATACCCAAC TTATGTTTTT GTGTGTCTGT ATATAGATAA ACATTACATA CCCATATTTG  
CTATGGGTTG AATACAAAA CACACAGACA TATATCTATT TGTAATGTAT GGGTATAAAC

1250  
TGTATAGACA TAAAAAGTGG AAATTAAGGT AACAAAAAGA AATGGGAAGA GGAAGAGTAG  
ACATATCTGT ATTTTTCACC TTTAATCCA TGTGTTTTCT TTACCCTTCT CCTTCTCATC

1300  
AGCTGAAGAG GATAGAGAAC AAAATCAACA GACAAGTAAC GTTTGCAAG CGTAGGAACG  
TCGACTTCTC CTATCTCTTG TTTTAGTTGT CTGTTCAATG CAACCGTTTC GCATCTCTGC

1350  
GTTTGTGAA GAAAGCTTAT GAATGTCTG TTCTCTGTGA TGCTGAAGTT GCTCTCATCA  
CAACAACTT CTTTCGAATA CTTAACAGAC AAGAGACACT ACGACTTCAA CGAGAGTAGT

1400  
TCTTCTCAA CCGTGGAAAG CTCTATGAGT TTTGCAGCTC CTCAAAGTAA ACACTCTCT  
AGAAGAGGTT GGCACCTTTC GAGATACTCA AACCTCGAG GAGTTTCATT TGTGAGAGA

1450  
CACTCTTTAT CAGTTTCTTG ATTGAGTTT TGCTAGATCT GAGCTTAGAT CTTTGTCTCA  
GTGAGAAATA GTCAAAGAAC TAACCTAAAA ACGATCTAGA CTCGAATCTA GAAACAGAGT

1500  
AGGACTTGT ATATATAGAT CACACGATCT TGATTTCTAC GAAGTTGAGT TAATTAGATT  
TCTGTAACAA TATATATCTA GTGTGCTAGA ACTAAGATG CTTCAACTCA ATTAATCTAA

1600  
TCTTGATTC ATTTCTAGG GTTTTTTTC AATTCTGAA ATTTAAGATC TGGTTTTTTT  
AGAACTAAAG TAAAGATCC CAAAAAAGG TTAAGAACTT TAAATTCTAG ACCAAAAAAA

1650  
GTTGTCATG ATTTAGAACT GTGAATTTG TAATCGAATA GATTCAAAT CCTGATATGC  
CAACAGTTAC TAAATCTTGA CACTTAAAC ATTAGCTTAT CTAAGGTTTA GGACTATACG

1700  
AATCTGAAAA GTTTTATATA ATTAATATAT GTCTGTGTA TTGGAACCTT AAAAGTTGGA  
TTAGACTTTT CAAAATATAT TAATTATATA CAGACACACT AACCTTTGAA TTTTCAACCT

1750  
ATCACAGATT TCTATGAAAA TTACAAGTAT CCAACGTAGA ATTGATAATA TATGGTTACA  
TAGTGTCTAA AGATACTTTT AATGTTTATA GGTGTCATCT TAACATATTAT ATACCAATGT

1800  
TGCATTAACC ATTTGTTAGT TCATCATACT TTATGTTGGT TAAACCTTCA AACGCGTGTA

Fig. 1b

Fig. 1c

[illegible]

2800  
TTAATTATAC TACTATGGTG GTATGATGAT TGTTTGCCAGA CACAGTACAT GCTTGACCAG  
AATTAAATATG ATGATACCAAC CATACTACTA ACAAACGCTC GTGTCATGTA CGAAGCTGGTC

2850  
CTCTCGGATC TTCAAAATAA AGAGCAAATG TTGCTTGAAA CCAATAGAGC TTTGGCAATG  
GAGAGCCTAG AAGTTTTATT TCTCGTTTAC AAGCAACTTT GGTTCATCTG AAACCCGTTAC

2900  
AAGGTATAAT TACAGAATAA ATGCATTGGG TGACTTGCGA TCAATCTCTT TCACAGAGTT  
TTCCATATTA ATGTCTTATT TACGTAAACC ACTGAACGCT AGTTAGAGAA AGTGCTCTCAA

2950  
TAAGTTTCTA AATATGTTTT GAAACATCTC TAGTTTTCTT GTTTCGTATT ATAGTCTTTT  
ATTCAAGAT TTTACAAAA CTTTGTAGAG ATCAAAAGAA CAAAGACTAA TATCAGAAAA

3000  
GGTGAAATGT AAATGTTTTAG CTGGATGATA TGATTGGTGT GAGAAGTCAT CATATGGGAG  
CCACTTTTCA TTTACAAATC GACCTACTAT ACTAACCACTA CTCTTCAGTA GTATACCCTC

3050  
GATGGGAAGC CGGTGAACAG AATGTTACCT ACGCGCATCA TCAAGCTCAG TCTCAGGGAC  
CTACCCCTTC GCCACTTGTC TTACAATGGA TCGCGCTAGT AGTTCGAGTC AGAGTCCCTG

3100  
TATACCAGCC TCTTGAATGC AATCCAATCT TGCAATGGG GTAAATCTGC CTTGAAAAAT  
ATATGGTCGG AGAAGCTTACG TTAGGTTGAG ACGTTTACCC CATTTAGACG GAACTTTTTA

3150  
CATCTGCAAA TCAGTTTGTG TACTTAACCTA CTAAGATTGT CCTTATTTAA GGTCTTTTAC  
GTAGACGTTT AGTCAAAACAT ATGAATTGAT GATTCATAAC GGAATAAATT CCAAGAAATC

3200  
TTGCTTGGTG TAAAGAGGAT CATCAATGTG TGTGAACCTT CTAAGTTGAT GTTTTGGCGA  
AACGAACCAT ATTTCTCCTA GTAGTTACAC ACACCTTGGAA GATTCACCTA CAAACCCGCT

3250  
TGATGATGAT GATGCAGGTA TGATAATCCA GTATGCTCTG AGCAAAATCAC TGCAGACAAC  
ACTACTACTA CTACGTCCAT ACTATTAGT CATACGAGAC TCGTTTAGTG ACCTGTTGT

3300  
CAAGCTCAGC CGCAGCCGGG AAACGGTTAC ATTCCAGGAT GGATGCTCTG AGAATCATGT  
GTTGAGTGCC CGCTCGGCC TTTGCCAATG TAAGGTCCTA CCTACGAGAC TCTTAGTACA

3350  
ACTGTGATGA AGCTCACCCA CAAAGACCTT TATATATATA TAAAGTATAG ATACAAGACT  
TGACACTACT TCGAGTGGGT GTTTTCTGGA ATATATATAT ATTTTATATC TATGTTCTGA

3400  
TGGATTGTGA GACATAAGTG GCTAATATAA TGGTCTGTAG GATCTTCTAG ACATTTGTAT  
ACCTAAACAT CTGTATTACG CGATTATATT ACCAGGACTC CTAGAAGATC TGTAAACATA

3450  
CTTTTGGGAA TCCTTGCTTA TATTAAGAAT TCAAATGTGT GGAACCTGTT TTAACACTGA  
GAAACACCTT AGGAACGAAT ATAATTCCTA AGTTTACACA CTTGAACAA AATTGTGACT

3500  
ACCATGACAC TGGTTTATTA TCATGTAATG AGAGAAACAT TTGGGTATACA ATGTGATCTC  
TGGTACTGTG ACCAAATAAT AGTACATTAC TCTCTTTGTA AACCCAATGT TACACTAGAG

3550  
TCCTTGACCC AAATACACAA TATAAACCTT ATGCCAAAT ACAAGCATCA CATATATATA

3600  
3700

Fig. 1d

AGGAACTGGG TTTATGTGTT ATATTTGGGA TACGGTTTTA TGTTGCTAGT GTATATATAT

3750  
TTCATAAAG GTTTAAGTAA TCATACAAAT GATGTAAAAA GTTTCATGCC TTGAACAAAA  
AAGTATTTTC CAAATTCATT AGTATGTTTA CTACATTTTT CAAAGTACGG AACTGTGTTT

3800  
CACTGCGCCA AAGGCAATG GTAAGAAACA TGTCAGATTC CTGTGTGCAT CTGTTTTCCT  
GTGACSCGGT TTCCGTTTAC CATTCTTTGT ACAGTCTAAG GACACACGTA GACAAAACGA

3850  
GCTGCTGCTG TTGTTATCTC TCAAGAGGGT TTCTCAGAA CTCATAAGC CAAACGTGCA  
CGACGACGAC AACAAATAGAG AGTTCTCCCA AAGGAGTCTT GAGGTATTG GTTTGACGT

3900  
GAGAGACGTT TCCTCATTCC CCCATCGTAT ACAATACCAT ATATTGTTAA AAAAAAGATA  
CTCTCTGCAA AGGAGTAAGG GGGTAGCATA TGTATGTTA TATAACAATT TTTTTCCTAT

4000  
TCACAGATCA AATCAATTG CACATCTCTC TGCTGCCTTG TCAATCCTCT CAGGTCCGGT  
AGTGTCTAGT TTAGTTAAAC GTGTAGAGAG ACGACGGAAC AGTTAGAGGA GTCCAGGCCA

4050  
CAAGGCAGAT CAAGACAGGA TCAATGGCAA CAAGTTACGG TGTTTCGTTG AACTCCATCA  
GTTCCGCTCTA GTTCTGTCCT AGTTACCGTT GTTCAATGCC ACAAGCAAC TTGAGGTAGT

4100  
CCTGCAATG AGACGAATTC ACACGAGAGA AAAAAATATT CTTTGTCTCA CATGAATGAG  
GGACGTTTAC TCTGCTTAAG TGTCGCTCT TTTTATTAA GAAATCAGTT GTACTTACTC

4150  
AAATATTCAT AATGTTCTGA GTTTCAGGAA GAATGATTAG CCATATTGTT ACTAGACAAG  
TTTATTAAGT TTACAAGACT CAAAGTCCTT CTTACTAATC GGTATAAACA TGATCTGTTT

4200  
ACAAGTAAAG ATTTTACGCA TGTCCTTCTA GGGTTGTGTT ACATCTTTCA TTCTATTGAT  
TGTTCAATTC TAAAAATGCGT ACACGAAGAT CCCACAACA TGTAGAAAGT AAGATACTA

4250  
CTCTGGATCA CTCGCTATT TATGCGTGAT GGTGTCTGAG TCTGACTCTG AAACACTAGT  
GAGACCTAGT GAGCAGATAA ATACGCACTA CCACAGACTC AGACTGAGAC TTTGTGATCA

4300  
AAATGAGAAG CCGAAAACGT GCTTGAAGA ACATGAAAAG TGTTTACCTT TCCACAACA  
TTTACTCTTC GGCCTTTGAC CGAACCTTCT TGTACTTTTC ACAAGTGAA AGGTGTTTGT

4350  
GGGCAGTTTT CACTTCTCTC CATCCATTCA TAAATGCAAC TAAGGTGGAA ATGTTGAGAA  
CCCGTCAAAA GTGAAGAGAG GTAGGTAAAG ATTTACGTTG ATTCCACCTT TACCACCTCT

4400  
CACTTTGTAA CAATCTTCGG GTTCTCTGAT ATGTATTCTA CAAACACAC GAAATAATCT  
GTGAAACATT GTTAGAAGCC CAAGAGACTA TACATAGAT GTTTGTGTG CTTTATTAGA

4450  
GATACTAAGC TT  
CTATGATTCG AA

Fig. 1e

-1104  
TGATAGCGCT TCGTTCATCA TGCAGAAGAA ACCAATGTTT CCCCAATCTC  
ACTATCGCGA AGCAAGTAGT ACGTCTTCTT TGGTTACAAA GGGGTTAGAG

-1054  
ACGCGCCTCC TCCTATCTAC CACCACTTGG ACAAAATCCCC TTTGCAGTAT  
TGC GCGGAGG AGGATAGATG GTGGTGAACC TGTTTAGGGG AAACGTCATA

-1004  
TCGTTTTTTT TTCGGGACAT TGTACATTCA AAAGCATTTCC AAGTGTCTAA  
AGCAAAAAAA AAGGCCTGTA ACATGTAAGT TTTGTAAGG TTCA CAGATT

-954  
TAAACATAAC TAACCACTCC AAGATGCAAA ATCTAGCTAC GACGAACAAA  
ATTTGTATTG ATTTGGTGAGG TTCTACGTTT TAGATCGATG CTGCTTGTTC

-904  
TTTTAAACTA TAGAGATGAA CTTTAAATTC GGGCAATTAAT TAGTGGAAC  
AAAATTTGAT ATCTCTACTT GAAATTTAAG CCCGTAATTA ATCACCCTGA

-854  
TGAGCTATTG ATGATCGAGT TTTCTGACTT TTTGAAGCTT AAGCTTAATT  
ACTCGATAAC TACTAGCTCA AAAGACTGAA AAACCTTCGAA TTCGAATTAA

-804  
GAGTTTTATA TACACTATAT AGGCTTGTA TAAATATGGAT CAAACAGAA  
CTCAAAATAT ATGTGATATA TCCGAACATT ATTATACCTA GTTTGTCTTC

-754  
AAATACAAAC TACAAATTGG GAATTGGGTT TTTAAACGTT ATCGTTCAT  
TTTATGTTTG ATGTTTAACC CTTAACCCAA AATTTTGCAA TAGCAAGATA

-704  
TTTAATTCAG GCACGTACCT TTAGAATATC AAGATCCATG TTCAATATT  
AAATTAAGTC CGTGATGGA AATCTTATAG TTCTAGGTAC AAAGTTATAA

-654  
TCTGTTGACA AATAAATAAA GATGTCTCAA ATATAAGTTG GGCAACGTAC  
AGACAACGTG TTATTTATTT CTACAGAGTT TATATTCAAC CGTTGTCATG

-604  
GTGTAGACCT AAAAGAGTCG AAACATTGGT ATCTAAGTTA TATATCTACA  
CACATCTGGA TTTTCTCAGC TTTGTAACCA TAGATTCAAT ATATAGATGT

-554  
TGGATTATAT AACAAGACAA CGTTTGTTC TTTAACTTCA TTGATTTTTC  
ACCTAATATA TTGTTCTGTT GCAACACAAA TTTTGAAGT AACTAAAAAG

-504  
TTAATTAGTA GCAACTAGCA ACTAATCTACT CATGGCAAAAT AATGGCGTCT  
AATTAATCAT CGTTGATCGT TGATTGATGA GTACCGTTTA TTACCGCAGA

-454  
CGGTGGCAGC CGACTTGGGA GAGAAGGTGT GAGAATGTTT TTACTTTCTG  
CGCACCGTGC GCTGAACCTT CTCTTCCACA CTCTTACAAA AATGAAAGAC

-404

Fig. 2a

0066582-02502

TGTAAAAGAT GGAAGAGAGA GAAAGAGTAA AGAAGTAGAG AGAGAGATAT  
ACATTTTCTA CCTTCTCTCT CTTTCTCATT TCTTCATCTC TCTCTCTATA

-354  
TGTATCACCA AACCCTAATG ATCTCTCACC CTCACAAATT TTCTTATCTT  
ACATAGTGGT TTGGGATTAC TAGAGAGTGG GAGTGTITAA AAGAATAGAA

-304  
TATAGCTTTT ATAGATTAC AAAAAGCTTT CTTCAGATTC ACAATCTCAT  
ATATCGAAAA TATCTAAGTG TTTTGGAAAA GAAGTCTAAG TGTTAGAGTA

-254  
CACAAACCTT CAAAAAGAGA AAAGATCTAA AGAATAAACA AGAGCCCTAA  
GTGTTGGGAA GTTTTCTCT TTTCTAGATT TCTTATTGT TCTCGGGATT

-204  
TATCAATCA CAACCAAAAA AACCAAGAA AGCTAATTAA AGTTTCTCT  
ATAGTTTAGT GTTGGTTTTT TTGGTTTCT TCGAATTAAT TCAAAAGAGA

-154  
CTAGCTATTC CTCTCTTTT CTTGTTCTTG AAAAGTAGGG TTTATCTTAC  
GATCGATAAG GAGAAGAAAA GAACAAGAAC TTTTGATCCC AATGAAGTG

-104  
CAAAAAGATA AGATCTTTCC CCAGAAAAAG CAATACCCAA GTCATGTTTC  
GTTTTCTAT TCTAGAAAGG GGTCTTTTC GTTATGGGTT CAGTACAAAG

-54  
TGTGTGCTG TATATAGATA AAACATTACA TACCCTAATA AGGTTACACA  
ACACACAGAC ATATATCTAT TTTGTAATGT ATGGGATTAT TCCAATGTGT

-4  
AATAGCTATA AAGAGGGGAA AATAAGATAG GGATTTTTTG GGGTGAGGAA  
TTATCGATAT TTTCTCCCTT TTATTCTATC CCTAAAAAAC CCCACTCCT

47  
AGATGGGAAG AGGAAGAGTA GAGCTCAAGA GGATAGAGAA CAAAATCAAC  
TCTACCCCTC TCTTCTCAT CTCGAGTTCT CCTATCTCTT GTTTTAGTTG

97  
AGACAAGTGA CGTTTGCTAA ACGTAGAAAT GGTTTCGTGA AAAAGCTTA  
TCTGTTCACT GCAAAAGATT TGCATCTTAA CCAAGSACAT TTTTTCGAAT

147  
TGAGCTTTCT GTTCTCTGCG ATGCTGAAGT CTCTCTCATC GTCTCTCCCA  
ACTCGAAGAA CAAGAGACGC TACGACTTCA GAGAGAGTAG CAGAAGAGGT

197  
ACCGTGGCAA GCTCTACGAG TTCTGCAGCA CCTCCAAGTA TTTCTCTTTC  
TGGCACCGTT CGAGATGCTC AAGACGTCGT GGAGGTTTCA GAAGAGAAAG

247  
TTTATCACT TATTAGATCT GTGTGTAGAT CTTTCAATTT TTCTAGTCTT  
AAATATGTGA ATAATCTAGA CACACATCTA GAAAGTAAAA AAGATCAGAA

297  
GTGATGAGTT TTATCTTTCT TGATTGCTTT TTAACAAAAT ACTTGATATA

Fig. 2b

09869582-022600

CACTACTCAA AATAGAAAAG ACTAACGAAA AATTGTTTTA TGAATATAT  
 347  
 TTTTCAGTTT CTTAATCTGA CTCTAATTAG GTTTTGATTA ATAGGAAGGA  
 AAAAGTCAAA GAATTAGACT GAGATTAATC CAAAACTAAT TATCCTTCCT  
 397  
 AATAAATCCA GGTACCTTTC AAGGTGAATT G-----GAG ATCTGATCTT  
 TTATTTAGGT CCGATGGAAAG TTCCACTTAA C-----CTC TAGACTAGAA  
 447  
 AATTTAATCA TCATGTCAAA TTCCTAGGGA TTTAATTGCA ATCTATTTT  
 TTAAATTAGT AGTACAGTTT AAGAATCCCT AAATTAACGT TAGATAAAAA  
 497  
 AGATTTATCG GAGCTAGGAA AGTATCATAA TGATATACTA TTATTATCAT  
 TCTAAATAGC CTCGATCCCT TCATAGTATT ACTATATGAT AATAATAGTA  
 547  
 GTAATTTTAT TGTCTCTACA CGGATATATA TGTGATTAGA ACTTGGTAAA  
 CATTAAAGTA ACAGAGATGT GCCTATATAT ACACTAATCT TGAACCATTT  
 597  
 GTAAACTAAA GATTCACAGT CTTCAATGAA ATTGAAAAGA TCCACGCTAG  
 CATTTGATTT CTAAGTGTC AAGGTTACTT TAACCTTTCT AGGTTGCATC  
 647  
 AATAATTAGT GGTCCATGTC ATTAACCAAG CTAATTAAGG CTCATGCAGA  
 TTATTAATCA CCAAGGTAAG TAATTGGTCA GATTAAATTC GAGTACGTCT  
 697  
 CATTTAAGCA CCACATGAAT TTAATATCTT TTTAATTAAG GGATCTTCTT  
 GTAAATTCGT GGTGTACTTA AATTATAGAA AAATTAATTC CCTAGAAGAA  
 747  
 TTTATAAATT TTCTTTTIGT AGCTTTTAAA ATTTTAGTTT GTTCATTAAA  
 AAAATTTTAA AAGAAAACAA TCGAAAATTT TAAAATCAAA CAAGTAATTT  
 797  
 ATTTATAGAT CCTCCTCTCC TGATTTGTGT TTCCGATCC TTCCAGCAT  
 TAAATATCTA GGAGGAGAG ACTAAACACA AAGGCTAGG AAGGTGCTA  
 847  
 GCTCAAGACA CTGGAAAGGT ATCAGAAGTG TAGCTATGGC TCCATTGAAG  
 CGAGTTCTGT GACCTTTCCA TAGTCTTCAC ATCGATACCG AGGTAACCTC  
 897  
 TCAACAACAA ACCTGCTAAA CAGCTTGAGG TTTAATCTCC AACATCTCTT  
 AGTTGTTGTT TGGACGATTT GTCGAATCC AAATTAGAGG TTGTAGAGAA  
 947  
 CGATCTTAAT TATTTATCCT TTTTAAATTT TATCTAAGA AAATGTTTGA  
 GCTAGAATTA ATAAATAGGA AAAAATTAAA ATAGATTCTT TTTACAACT  
 997  
 TTTTGAGACA AAAGCCCTTC AAAGTTTCTT ACATAGATAT TCAATTGTCT  
 AAAACTCTGT TTTCGGGAAG TTTCAAAGAA TGATCTATA AGTTAACAGA

Fig. 2c.

09869582-022602



09869582-022002

1047  
ATTATCTTCG CAATTTTCAG AACAGCTACA GAGAGTACTT GAAGCTGAAA  
TAATAGAAGC GTTAAAGATC TTGTCGATGT CTCTCATGAA CTTCGACTTT

1097  
GGTAGATATG AAAATCTGCA ACGTCAGCAG AGGTATATAC ATTAATGTGG  
CCATCTATAC TTTTAGACGT TGCAGTCGTC TCCATATATG TAATTACACC

1147  
ATGATGATCA TTTATAAACA GCATATATAT ATATATATAT ATATATATAT  
TACTACTAGT AAATAITTTG CGTATATATA TATATATATA TATATATATA

1197  
ATATAGAAAG TATTGATCAT GAAAGTGTGT TGCAGCAGAA ATCTTCTTGG  
TATATCTTTC ATAAC TAGTA CTTCACACA ACGTCGTCTT TAGAAGAACC

1247  
AGAGGATCTT GGACCTCTGA ATTCAAAGGA GCTAGAGCAG CTTGAGCGTC  
TCTCCTAGAA CTGGGAGACT TAAGTTTCCT CGATCTCGTC GAACTCGCAG

1297  
AACTAGACGG CTCTCTGAAG CAAGTTCGCT GCATCAAGST GATTTACTTC  
TTGATCTGCC GAGAGACTTC GTTCAAGCGA CGTAGTTCCA CTAATTAAGA

1347  
TGTACATACA CTGAAAGATT CACACAAATC TTTCTCTATA TATAGACTGA  
ACATGTATGT GACTTTCTAA GTGTGTTTGA AAAGAGATAT ATATCTGACT

1397  
GACACATGCA TGAAATGTTT TTGATGCGTG AGGTTATCTG AAAATGCCTC  
CTGTGTACGT ACTTTACAAA AACTACGCAC TCCAATAGAC TTTTACGGAG

1447  
TTCTTTTTTG CAGACACAGT ATATGCTTGA CCAGCTCTCT GATCTTCAAG  
AAGAAAAAAC GTCTGTGTCA TATACGAACT GSTCGAGAGA CTAGAAGTTC

1497  
GTAAGGAGCA TATCTTGCTT GATGCCAACA GAGCTTTGTC AATGAAGGTA  
CATTCCTCGT ATAGAACGAA CTACGGTTGT CTCGAAACAG TTACTTCCAT

1547  
TATGATGATG TTTCTCTCTC TCTCCTCCAG TTTCTATTTA TAGATGGAAA  
ATACTACTAC AAAGAGAGAG AGAGGAGGTC AAAGATAAAT ATCTACCTTT

1597  
CTTTAAATAG TCCAATTTAT ATATATGAGT CTAATTTTCA CATTCCTCAA  
GAAATTTATC AGGTTAAATA TATATACTCA GATTTAAAGT GTAAGAAGTT

1647  
CTGCTACATG TTTCTTTTGT ATTATTCTTA TGATATCTTC AGGAAAGTTT  
GACGATGTAC AAAGAAAACA TAATAAAGAT ACTATAGAAG TCCTTTCAA

1697  
GAAAAATATT GTGTTTGTGT TAGTCGGAAG ATATGATCGG CGTGAGACAT  
CTTTTATATA CACAAAACAA ATCGACCTTC TATACTAGCC GCACCTCTGA

Fig. 2d

1747  
 CACCATATAG GAGGAGGATG GGAAGGTGGT GATCAACAGA ATATTGCCTA  
 GTGTATATC CTCCTCCTAC CCTTCCACCA CTAGTTGTCT TATAACGGAT

1797  
 TGGACATCCT CAGGCTCATT CTCAGGSACT ATACCAATCT CTGTAATGTG  
 ACCTGTAGGA GTCCGAGTAA GAGTCCCTGA TATGTTAGA GAACTTACAC

1847  
 ATCCCACTTT GCAAATTGGG TAAATCAAAC AACTTTTCTT GCTTTAAGTG  
 TAGGGTGAAA CGTTTAACCC ATTTAGTTTG TTGAAAAGAA CGAAATTCTG

1897  
 ATCAACTTAG GTTATAACA GTTAGCAGTT TGCITTAAGC CCAACATTGT  
 TAGTTGAATC CAATATTGTG CAATCGTCAA ACGAAATTCG GGTGTGAACA

1947  
 CTTTGTTC A TAGAGGCTTT GGTAAAACT CGTGTGTTT AGTCTAAGGA  
 GAAACAAAGT ATCTCCGAAA CCAATTTTGA GCACAACAAA TCAGATTCTT

1997  
 TTCAGCACTT TGATGCTGA AGTATGGAAT ATCAATCTCT CAGACTTGAA  
 AAGTCGTGAA ACTACAGACT TCATACCTTT TAGTTAGAGA GTCTGAACCT

2047  
 AATGTGGGTT TCTATTGTTG ACTTCGAAAC TATGTTGTTG TGGTGTGGCA  
 TTACACCCAA AGATAACAAC TGAAGCTTTG ATACAACAAC ACCACAACGT

2097  
 AACAGATATA GCCATCCAGT GTGCTCAGAG CAAATGGCTG TGACGGTGCA  
 TTGTCTATAT CGGTAGGTCA CACGAGTCTC GTTTACCGAC ACTGCCACGT

2147  
 AGGTCAGTCC CAACAAGGAA ACGGCTACAT CCCTGGCTGG ATGCTGTGAG  
 TCCAGTCAGG GTTGTTCTCT TGCCGATGTA GGGACCGACC TACGACACTC

2197  
 CGATACTTCT TCCCCAATA AAGATCTTAA GCAAGTACTG GTGGGGTCTT  
 GCTATGAAGA AGGGGGTTAT TTCTAGAATT CGTTCATGAC CACCCACAGAA

2247  
 CGTGGTGTGA TCTTAGATCT TATGCATATG AATAATAATG TTATTGCACA  
 GCACCACT AGAATCTAGA ATACGTATAC TTATTATTAC AATAACGTGT

2297  
 AGACTTTTGC TTTGTAGAC ACAAGTGGCT ATAGCTGTAA TAGCCTTCAA  
 TCTGAAAACG AAAACATCTG TGTTCAACCA TATCGACATT ATCGAAGTT

2347  
 CATCTCTCTT CTGTTTCAGG ATTTGTTTGT GCCTATTGTA ATTGCTTATA  
 GTAGAGAGAA GACAAAGTCC TAAACAAACA CGGATAACAT TAACAATAT

2397  
 TATGTATGTT TTGTATAATG TGTGAAATGT TAACATCGAC CATGTCTCAT  
 ATACATACCA AACATATTAC ACACCTTTACA ATTTAGCTG GTACAGAGTA

CTGSGAAGA TCTTATCCTG TCTATGCATG ATACCAAAA

Fig. 2e

09869582-02260

WO 00/23578

11 / 43

09/869582

PCT/US99/24407

GACCACTTCT AGAATAGGAC AGATACGTAC TATGGTTTT

20220-2856860

Fig. 2f

Sequence Range: 1 to 14940

```

50
TAAATCTGG AAGTTCCAG CCCTGATAAT GTTCAGAAT AAATTAGTGC GCAGTAAGTC
ATTTTAGACC TTCAAAGGTC GGGACTATTA CAACGCTTA TTTAATCAGC CGTCATTACG

100
TCCAAAAAGA GAGAACTAC AAATAAATAA ACCAAGTCAA ATTCATTAAAC AAGGAGAACA
AGGTTTTTCT CTCTTTGATG TTTATTTATT TGGTTCAGTT TAAGTAATTG TTCCTCTTGT

150
GCATGAAATG TTTCCCAAAAC ACACAAAATC TTGACTAGCC AACAGCGGCTT CAAATGAGGA
CGTACTTTTAC AAAGGGTTTG TGTGTTTITAG AACTGATCGG TTGTCGGGAA GTTTACTCTT

200
AGTAACTAAT TTCAGTAGCT TGGGTATGGT GAAGTATAAT TACCTTCCAC CACACATATC
TCATTGATTA AAGTCATCGA ACCCATACCA CTTCATATTA ATGGAAGGTG GTGTGTATAG

250
CGTAGCCTAT CACCCCAACG ATAATGATCA AACCATAGIT TCTACCACCT GTACATTGAA
GCATCGGATA GTGGGGTTGC TATTACTAGT TTGGTATCAA AGATGGTGA CATGTAACCT

300
GGAAGTGTT AACTGTTTTT TTCGGAATTT AGATCAACAG TAAACAAAGA ATGGTGTTAC
CCTTTCACAA TTGACAAAAG AAGGCTTAAA TCTAGTTGTC ATTTGTTTCT TACCACAATG

350
TCTAAGTCTC TAATGTAATG CCTTCCTAAA TGCTACAAAG AAAAGCCACT TATCAGAAC
AGATTCAGAG ATTACATTAC GGAAGGATTT ACGATGTTTC TTTTCGGTGA ATAGTCTTGT

400
AAGTATGICT TGTTTGATGC GAGAAAAAGTA GCAAAAGAGA ATAAAACTGT AAATATAATT
TTCATACAGA ACAAACATAG CTCTTTTCAT CGTTTTCTCT TATTTTGGAC TTTATATTA

450
TCAAAATACA ATGTCTAGAA ATCTAAGTGT GCAAAATCCTT TATTCAGTT TCATATCAAA
AGTTTTATGT TACAGATCTT TAGATTACCA CGTTTAGGAA ATAAGTTCAA AGTATAGTTT

500
CCAAATTTGA CATTCTAGT GCAGAACAGA AAACAAAATC TCAATATAAA AAAATATAAA
GGTTAAAACT GTAAAGATCA CGTCTTGCTT TTTGTTTGA AGTATATTT TTTTATATTT

550
AACTCCAGAG GACCTGATCC TGAAGGTGAA ACAAATGSTA TAGGTCTGTT TGACCCGACG
TTGAGSTCTC CTGGACTAGG ACTTCCACTT TGTACCCTT ATCCAGACAA ACTGGGGTCG

600
AACTGTATCT CATGCCTAAG ACTGTTAACC TACAAAAATA AATAGAGCTC AGGCAAGAAA
TTGACATAGA GTACGGATTG TGACAATTGG ATGTTTTTAT TTATCTCGAG TCGCTTCTTT

650
CTATTGATTC ACGATAAATC TATGTCCTCA GCAAGTCTAT ATTATCCAGC TCCATCCGAT
GATAACTAAG TGCTATTITAG ATACAGGAGT CGTTCAGATA TAATAGTTCG AGGTAGGCTA

700
AGCTTATCAT GCCTAATAGA TTAATGTGAA ACTTACCTGG GCCACAAGTA CATCATCGTG
TCGAATAGTA GCGGTTATCT AATTACACTT TGAATGGACC CGGTGTTTCA GTATAGACAC

750
GGGTTTTCCTA GCTGATTTCG TAGGTCGCTC TTGTTTCAGT TGCCTGAATA CCATCTGCTCC
CCCAAAACGAT CGACTAAAGC ATCCAAAGCAG AACAAAGTCA ACGGACTTAT GGTAGACAGG

800
850
900

```

Fig. 3a

950  
ACATAAACAA AACCCATTGC CTCATTTTGC CAAACCGCAT CATACACATG TGAAGTCGCC  
TGATTTTGTT TTGGGTAACG GAGTAAACG GTTTGGCGTA GTATGTGTAC ACTTCAGCGG

1000  
AAAGCTTTTG CACAATATAG AAATTAGAAT ACCTTAAAG CACCGAAGC CAAATTTGGAG  
TTTCGAAACG GTGTTATATC TTTAATCTTA TGGAAATTTT GTGGTCTTTG GTTTAACCTC

1050  
ACATCTGGTA AGCCCCCTTC TTTAGAAAAT GCTGATCCAA TAAGACCTTA AAGTAACATT  
TGATGACCAT TCGGGGGAAG AAATCTTTTA CGACTAGGTT ATTCTGGAAT TTCATTGTAA

1100  
TGCAAAATC ACAGTATAGT TAGTAATTGC AGTAACCTTA ACGAACATTA AGCATGTACA  
ACGTTTTTAG TGTCATATCA ATCATTAAAG TCATTGAACC TGCTTGTAAT TCGTACATGT

1150 1200  
CGAAATCAAT CGACTCAGCA AGTTCACAAT AATTGTACTA GTAGGTGCAT TCACAGAGAA  
GCTTTAGTTA GCTGAGTCGT TCAAGTGTTA TTAACATGAT TCCACCGTA AGTGCTCTTT

1250  
ACTAAACATA AACTTCTCCT CAGATGTATT CAGAGAAATG CTATACTCCA ATAAAGCTTT  
TGATTTGTAT TTGAAGAGGA GTCTACATAA GTCTCTTATC GATATGAGGT TATTTTCAGAA

1300  
AAACTTTGAG CCAGTCAAGT ACACTGATCA AAGGGTTTAT GAAAAACACT AACTTCTTAT  
TTTGAAACTC GGTCAAGTCA TGTGACTAGT TTCCCAAATA CTTTTTGTGA TTGAAGAATA

1350  
CCTCTAATTG CGATTACCCA TAGACGAAAC CATAAAAAA GCAATGGAGA ACTAGAGCAC  
GGAGATTAACT GCTAATGGGT ATCTGCTTTG GTTATTTTTT CGTTACCTCT TGATCTCGTG

1400  
AGTCACTACA AGAAATACCC TATAAAAGTA CCGACCTGCA CCGATGAGGA TGGTGAGCTT  
TCAGTGATGT TCTTTATGGG ATATTTTCAT GGCTGGACGT GGCTACTCCT ACCACTCGAA

1450 1500  
CCCAGACGGA AGAGCCATGG CTAGAGACGA GCTTATACGG CGAAGAACTA AGATGGCAAA  
GGGCTCGCCT TCTCGGTACC GATCTCTGCT CGAATATGCC GCTCTTGAT TCTACCGTTT

1550  
CGAATCCGGC TGAGAATATC TAAGAGAGTA TTGGTAAGAG AGAGCTGCAG GAACGTACCG  
GCTTAGCGCC ACTCTTATAG ATTCTCTCAT AACCATTCTC TCTCGACGCT CTTCATGGC

1600  
GTGAACAGCA GCGTTTTTTT GGGACGATGA AGTGAGGCAG CGAGAGAGAT ACGACGTGCG  
CACTTTGTCT CCGCAAAAAA CCCTGCTACT TCACTCCGTC GCTCTCTCTA TGCTGCACGC

1650  
ACTATATTGT TCGCTTGTGG AGGCAACAAA ACAGAGTTGC TTCTAAAACC CGAACCGAAA  
TGATATAACA AGCGAACAA CCGTGTGTTT TGTCTCAACG AAGATTTTGG GCTTGGCTTT

1700  
TGTCGGTGCT GATTCCGGTCT AATCAGCAT TAGGTTCTGT TTAARACCTA GGAGGCAATA  
ACAGGCCAGA CTAAGCCAGA TTTAGTGCTA ATCCAAGCAA AATTTTGGAT CTTCCGTTAT

1750 1800  
ACCGGACGGA TCATAAATTC ATAATAGAGA CAGACAAAT GGTCCATTAT TAAATCACT  
TGGCTGCCT AGTATTTAAG TATTATCTCT GTCTGTTTAA CCAAGTAATA ATTTTAGTGA

1850  
TGGGCAATTG GGGATGATTC AATGCCCAA GTTTTCTCAA ATTTGGACGA TTCATTACC

Fig. 3b

0966582-022802

ACCCGTAAAC CCTACTAAG TTTACGGGTT CAAAAGAGTT TAAACCTGCT AAGTAAGTGG  
 1900  
 TAAGACATAC TTGAGCAACA ACAAAGTGAA GTCCACTGTC ATATCTTATG TCTCAAAAAAG  
 ATTCTGTATG AACTCGTTGT TGTTCACCTT CAGGTGACAG TATAGAATAC AGAGTTTTC  
 1950  
 TATTGAAATG TGTCAAATGA TATTGGAGAG GCACACTAGC TAAGGGATTA TTCAATCAAT  
 ATAACTTTAC ACAGTTAACT ATAACTCTC CGTGTGATGC ATTCCCTAAT AAGTTAGTTA  
 2000  
 TTCCAGCAAT TTAATTAAAC TTATTTGTAG TGAAGTGGG AAGATAAAG ATCTCACCTT  
 AAGGTCGTTA AATTAAATTTG AATAAACATC ACTTTCACCC TTCTATTTTC TAGAGTGGGA  
 2050  
 CACATGTTCA AAAAAAAG TTGAAAATGG AAGTAATTCA ACATGTAGCA TAGAGCCCAA  
 GTGTACAAGT TTTTTTTTC AACTTTTACC TTCAATTAAGT TGTACATCGT ATCTCGGGTT  
 2150  
 ATATGTCTCA TTTTTTAAT CCATATAATC TCAAACTCTC TTACTTACTT CTAAACATAT  
 TATACAGAGT AAAAAAATTA GGTATATTAG AGTTTAGGAG AATGAATGAA GATTTGTATA  
 2200  
 GGTTCACATA ATCATAACAA TGCTATGTTA ACATGGCCGG TTCTAAAGGA AGCCAAGTGC  
 CCAAGGGTAT TAGTATTGTT ACGATACAAT TGTACCGGCC AAGATTTCCT TCGGTTCAAG  
 2250  
 AGCAACTGCC TTACGCCTCT ACGTGTATAA ATGAAAATGA AGACCACTGA CCACTTCTAT  
 TCGTTGACGG AATGCGGAGA TGCACAATTT TACTTTTACT TCTGTGACT GGTGAAGATA  
 2300  
 TAAAGCTTCA TTCACTAGTG TATAATTACA CATTTTTTTA AGGATTATAG AGTAGTGATT  
 ATTTCTGAAGT AAGTGATCAC ATATTAATGT GTAAAAAAT TCCTAAATAC TCATCACTAA  
 2350  
 GAGGCCATA TGTTTGTATG TTGTTTTTTC TTACTATATC ATTACTTGAC TATAAGAGTT  
 CTCGGGTAT ACAAACATAC AAAAAAAG AATGATATAG TAATGAAC TGATTCTCAA  
 2450  
 GGTTCCTAT TCCATTCTCT TTCTAACAG CCTATATATG TAAAAATCTA AGCAAAATTT  
 CCAAGGATA AGGTAGAGA AAGATTGTC GGATATATAC ATTTTATAGT TCGTTTAAAA  
 2500  
 CTTGTCAAGA GGATGATTGT ACATTTGTAC TTGGTTATCT CGCCCCGGCC CAAAACATAC  
 GAACAGTTCT CCTACTAACA TGTAACAATG AACCAATAGA CGCGGGCCGG GTTTTGTATG  
 2550  
 CTAAGGCCAG GTGCTATATC CTCAACCTGC TTTGGCATTG ATCAATCTAC GAACTTTGGC  
 GATTCCGGTC CACGATATAG GAGTTGGAGC AAACCGTAAG TAGTTAGATG CTTGAAACCG  
 2600  
 GTGAACGGT GACAAGATTA ACAAGATTCA CTCTCAACTA CGATGTCTTA CTATCTCAAA  
 CACTTTGCCA CTGTTCTAAT TGTTCTAAGT GAGAGTTGAT GCTACAAGAT GATAGAGTTT  
 2650  
 TCTTTAAAAA AGTGGATCAA ACTGTCAAAA GTCTAGTTGG ATGGAGTAGC TTCAACACTC  
 AGAAATTTTT TCACCTAGTT TGACAGTTTT CAGATCAAGC TACTGTATCG AAGTTGTGAG  
 2750  
 CTCCAATCTC AGTTCGATGG ACTATATATT CTCTCTGATG GCTATCCCTTA TCTTGGATTA  
 GAGGTTTAGA TCAAGCTACC TGATATATAA GAGAAGACTA CGATAGGAAT AGAACCTAAT

Fig 3c

09869582-022607

2800

GGCATCTAAA CTATGGTTTT AATGGTGTCA TGAGGTTTTA CAACTTACAA GGATGAAAGT  
CCGTAGATTG GATACCAAAA TTACCAAGT ACTCCAAAAT GTTGAATGTT CCTACTTTCA

2850

TATTTACTCC CAGTCACTAT CTTAATCAAA TGACAAAATG TTAAGTAGTT TGAGTGCTTA  
ATAAATGAGG GTCAGTGATA GAATTAGTTT ACTGTTTAC AATTGATCAA ACTCACGAAT

2900

TATATTAGTT ATGAATCTGA AATTATTATG TGTGTACATA AGTGATACAA CACTTAAATA  
ATATAATCAA TACTTAGACT TTAATAATC ACACATGTAT TCACTATGTT GTGAATTTAT

2950

ACATCTACAT GAGTTTTTAA ATAACATAAT AATCCATTAT AGTAGTTTAC GGCATAAGGT  
TGTAGATGTA CTCAAAAAAT TATTGTATTA TTAGTGAATA TCATCAAATG CCGTATTCCA

3000

3050

ATGAACCAAA TTTTTCATTG CACGCTGAAA AGTGAAAACG TTTAAAATGC ATAATGACTA  
TACTTGGTTT AAAAAGTAAC GTGCGACTTT TCACTTTTGG AAATTTTACG TATTACTGAT

3100

AGAGTCTATG ACAACAGTAA CTTACTATAT ATTAGAGGAG GGTGAAAAA AAAAGTAGAG  
TCTCAGATAC TGTGTGCATT GAATGATATA TAATCTCCTC CCCACTTTTT TTTTCATCTC

3150

AGACTGGTCC AAAAAGTTAA CCCCACTCAA TAAACCCAGA CGTGACTTGT TTGACGATAA  
TCTGACCAGG TTTTGAATT GGGGTGAGTT ATTTGGGTCT GCACTGAACA AACTGCTATT

3200

CTCCATCTTT CTATTTTGGG TAACGAGGTC CCCTTCCCAT TACGCTTGA CGTGACCCCT  
GAGGTAGAAA GATAAAACCC ATTGCTCCAG GGGAGGGTAA ATGCAGAATC GCACCTGGGA

3250

GTCCGCTAT TTTTAGCAGA TTAATCCAAC GGTTCTTATT CTTTCTCGA CCCTTCACGA  
CAGGCAGATA AAAATCGTCT AATTAGGTTG CCAAGAATAA GAAAGAAAGT GGGAAAGTCT

3300

3350

CATTGCCTCA AAGCCGTCG ATTCTCATCT CACGCCCAAT GGACCACATA TATCACCAGT  
GTAACGGAGT TTCGGCAGGC TAAGAGTAGA GTGCGGGTTA CCTGGTGTAT ATAGTGGTCA

3400

ACTCCGCAAC TTAGCTGTCG TGTAGGATTT CACGTGGCAT TTATTTGTTT TAGTTTGTAG  
TGAGGGGTTG AATCGACAGC ACATCTTAAA GTGCACCGTA AATAACAAG ATCAAAACATC

3450

TGCAAAACATT GCAAGTTGAT ATGGTCCCTC ATCGATCACC GTCGTCTCTT TAGCTTCACA  
ACGTTTGTA CTTTCAACTA TACCAGGGGA TAGCTAGTGG CAGCAGAGAA ATCGAAGTGT

3500

TCGAGATTCT TCTTTCTTTC CTACGTGTAA TAGCATTTTT GATTTTGAGA ATTTCTTTAG  
AGCTCTAAGA AGAAAGAAAG GATGCACATT ATCGTAAAAA CTAARAACCT TAAAGAAATC

3550

AACCGTTGGA TCTCTCATCG TTGGTTGATC CATCCATCCA AATGGGACCT GTGTGTGCTC  
TTGGCAACCT AGAGAGTAGC AACCACACTAG GTAGTAGTGT TTACCTGGA CACACACGAG

3600

3650

CATCCAGGCG ATATGATCCC AAAGCCAAAA GAGTATTTCC AAGTGCTTTC TTTCTTTCTT  
GTAGGTCCTG TATACTAGGG TTTTCGGTTT CTCATAAAGG TTCACGAAAG AAAGAAAGAA

3700

TCTTCTTTC TTACTAACCT TTTTTTTTCT TATGCTTTAG ACTAAGAAAT TTATTCGGCC

Fig. 3d

09869582-022602

AGAAAGAAAG AATGATTGGA AAAAAAAAAAGA ATACGAAATC TGATTCCTTA AATAAGCCGG

3750  
ATATCCACTT TTACGAATAT ACTTCTTACA AGATCTAGAT TTTTITGAGT TAATTCGGTG  
TATAGSTGAA AATGCTTATA TGAAGAATGT TCTAGATCTA AAAAAACTCA ATTAAGCCAC

3800  
TATATAACAT TGGCATGGAC TGCAATTAAAG TAATGGTAAT GTGATCATGA TGGCATGTGT  
ATATATTGTA ACCGTACCTG ACGTTAATTC ATTACCATT CACTAGTACT ACGCTACACA

3850 3900  
CGTTATCAGT AGTATAATAT TGAATGGCTA CCCTGGAAAA CAAAAATTACG TGTATATGT  
GCAATAGTCA TCATATTATA ACTACCCGAT GGGACCTTTT GTTTTAATGC ACAAATACA

3950  
ACACAATTG GTAGAACCGT AGAAATTAA CTGAATAAAA CCTTCTATAA TGTTCAAAAT  
TGTGTTAAAC CATCTTGCA TCTTTAATTT GACTTATTTT GGAAGATATT ACAAGTTTTA

4000  
TATATGGTAC AGATTAATAC GAAAAACAT TCACGCTTTA CGTAACAATT AAGTGGAAAG  
ATATACCATG TCTAATTATG CCTTTTGTG AGTGGCAAT GCATTGTTAA TTCACCTTTC

4050  
TAAAAATTAT CAAAAAATAT TTATATCACA TCATTGTTAT ATTTCTAAGT TTTTITATAT  
ATTTTAATAG GGTTTTATA AATATAGTGT AGTAACAATA TAAAGATTCA AAAAAATATA

4100  
CTCTAATGGT ATATGTTTTA CAGATTGTTT TTTGGGAAAA TTCTTAAAGA GACTTGAAGA  
GAGATTACCA TATACAAAAT GTCTAACAAA AAACCCCTTT AAGAATTTCT CTGAACCTCT

4150 4200  
ATGTTTTTTT TTTATTTTCT TGAAATGTTT GACACTTGAA ACCGTTTAAA AACTCAAATA  
TACAAAAAAA AATAAAAGA ACTTTACAAA CTGTGAACCT TGGCAAAATT TGTAGTTTAT

4250  
TAGTATATAT CATTGTTGGT CTCATACCTT GTAATTCACC ACATATATTA TCAATGGGGA  
ATCATATATA GTACAAACCA GAGTAGTGAA CATTAAAGTG TGTATATAAT AGTTACCCCT

4300  
AGATTTGAAA ATTTTGGGG GATCACAAAA CGAAGGAAAG AGTACAAAA GAGAAGGAAA  
TCTAACTTTT TAAAAACCCC CTAGTGTTTT GCTTCCTTTC TCATGTTTTT CTCTTCCTTT

4350  
AGATAGAAGA TATATGTTTT TAACCTCATT GGTATGCAT CAATAAATA ATAGTTGAAT  
TCTATCTTCT ATATACAAA ATTGAAGTAA CCATACGTA GTTATTTATT TATCAACTTA

4400  
GTACTTAGT TTCTCTTTTG GTTTAATGCA CATCATCTG ATCAATTGTC ATCATCTTAC  
CATGAAATCA AAGAGAAAAC CAAATTACGT GTAGTAGAGC TAGTTAACAG TAGTAGAATG

4450 4500  
ATTGAATTAT ACGACCAGAT CTGATAACAA GTGAATTCGT ACTTGCCCTT CCCTTTCTCT  
TAACCTAATA TGCTGGTCTA GACTATTGTT CACTTAAGCA TGAACGGGAA GGGAAAGAAG

4550  
TCATACGTCC TTCTAACTAA TTTTGATTGT AACTTATAAT TATATAACCA TATTTAATTT  
AGTATGCGAGG AAGATTGATT AAAACTAACA TTGAATATTA ATATATTGGT ATAAATTAATA

4600  
TATTTTATCT AAAACCAATT GAAGCAAAAT AAAATATCAT AAATCTTGAG TCCCAATGTA  
ATAAAAATAGA TTTTGSTTAA CTTGTTTTAA TTTTATAGTA TTTAGAACCT AGGGTGTA

Fig. 3e

00665567.022600



4650  
AGACAATATA TAAAACTCGT GCAAATTTGC TTAAATGCT TCTATGAGAC CATGACCAAG  
TCTGTTATAT ATTTTGAGCA CGTTTAAACG AATTTTACGA AGATACTCTG GTACTGGTTC

4700  
TGAGATTAAAT AAGCGATTCA ATGTGCAAAAT CAAAAGAGAA AAGAAGCTAA TGGGTTTAAA  
ACTCTAAATTA TCGCTAAGT TACACGTTTA GTTTTCTCTT TTCTTCGATT ACCCAAATTT

4750 4800  
TATAACCAAA CAGAATAATA ATGCTATGTT TAGTTTTTCT AATTGAATCA TACCTTTGTG  
ATATTGGTGT GTCTTATTAT TACGATACAA ATCAAAAAGA TTAACCTTAG ATGGAACAC

4850  
TCCATCACCT ACTTACCGGT CAGAATAAAG CAATTACGTC TGCAACCAAA AAGCACTAAG  
AGGTAGTGGG TGAATGGCCA GCTTATTTC GTTAATGCGA ACGTTGGTTT TCTGTATTCT

4900  
ACTTTCGGTC AGACATGATC TCTAACATCG GACGAACCTT AAGATAACCA AATAAACTA  
TGAAAGCCAG TCTGTACTAG AGATTGTAGC CTGCTTGGGA TTCTATTGGT TTTATTTGAT

4950  
TATCTTATAT TCAATCTCT GTTTATTTTA TCCATTTATG TTTTCTTCT TTCCATAAT  
ATAGAATATA AGTTTAGAGA CAAATAAAAT AGGTAAATAC AAAAGAAAGA AAGGTTATTA

5000  
TTTTTTTGTG TCTCATCAGA CTCTCTTACC AAACGTGAAT TATCAACATG GTTTTTTTTT  
AAAAAACAC AGAGTAGTCT GAGAGAATGG TTTGACTTAA ATAGTTGTAC CAAAAAATA

5050 5100  
TGCCACATC AAAATGGTGG TTTATAAGT AGACTAATAC AAAAGACATT TCTGTTAAT  
ACCGGTGTAG TTTTACCACC AAATATTTCA TCTGATTATG TTTTCTGTAA AGACAATTAA

5150  
TCACTAACAA AAATAATCTT AGCAGTACTA TAGATTGGAA AAGGAAAAGC AAATCTAGCA  
AGTGATTGTT TTTATTAGAA TCGTCATGAT ATCTAACCTT TTCCTTTTCG TTTAGATCGT

5200  
GTAAGATTTA TCAAACTAG CAGTAAGAGT TTTAGATATC ATGAAAACAT CACAAACGAG  
CATCTAAAT AGTTTGTATC GTCACTCTCA AAATCTATAG TACTTTTGTA GTGTTTGCTC

5250  
TAGTGTTTTA CTTTACATTT TTAACCAATC ACAAGGGTAG TTCCGTAAGT TGGGAAAATC  
ATCACAATAT GAAATGTAAA AATTGGTTAG TGTCCCATC AAGGCATTCA ACCCTTTTAG

5300  
GTACGAGSCT TCACCTAGTT AAGGTTAGGT CACATGATTC CCTGAACCTG ATTTTATAAG  
CATGCTCCGA AGTGGATCAA TTCCAATCCA GTGTACTAAG GGACTTGAGC TAAATATTC

5350 5400  
TAAAAAGAA AAATTTATAA AATCAAAAT TTTTATATAA AAAATCAGG TGGATTATC  
ATTTTCTCT TTTAAATATT TTAGTTTAA AAAATATATT TTTTATGTC ACCTAATAG

5450  
AGACCCATCC ATCGAGATGT CGACACGTGT CCAACTCAT TCATTGCCCT ACTATTTCT  
TCTGGGTGAG TAGCTCTACA GCTGTGCACA GGTGTGAGTA AGTAACGGGA TGATAAAGAA

5500  
GTTTAGGGTT GCAATCACTC ATCGCACACG CGCCATCTCC ACCTTCATT ATTAATCTCT  
CAAAATCCAA CGTTAGTGAG TAGCGGTGTC GCGGTAGAGG TGAAGGTAA TAATTAGAGA

5550  
CATTTTCAAC ATCACACTCT TACGAATCAT ACGATTTTAA TATCTCTGTC TCTCTCAACG

Fig. 3a

6500  
GGTCTCTCTG TGATGTGTTG TTGTGTCGTA CGTACGTGTT CTATCATATC CTTTTAAAG  
CCAGAGAGAC ACTACACAAC AACACAGCAT GCATGCACAA GATAGTATAG GAAAAATTTTC

6550  
AAGCAAGAG GAAAAAAAT TTGGGATACC CCAATCTGT ATCATTTTAT AACAGTTTG  
TTGTTTTCTC CTTTTTTTA ACCCTATGG GGTTAGACA TAGTAAAAA TTGTTCAAAC

6600  
CTTTTTGAT GTCTTTTGT GTTCTCTTT GATTCCATT TTGTTTTTG ATTTTTTTT  
GAAAAACTA CAAGAAAAA CAAGAGAAA CTAAGGTAA AACAAAAAC TAAAAAAG

6650  
TATTTCTCTT TACATCTATC AAAGTTTTT TTCTTATTT TTATGCTTA TTGTTTGTC  
ATAAGAGAA ATGTAGATAG TTTCAAAAA AGAATATAA AATAACGAAT AACAAACAG

6700  
TACTTAATTC ACATTATCTG AGAGAAGAC AATCTATCTG ATATGAAAT AGGTTAATT  
ATGAATTAAG TGTAATAGAC TCTCTTCTG TTAGATAGAC TATACTTTAA TCCCAATTA

6750  
TCTCTTGTA GTACTCTTTA ATTCACATA GCTTAAAGTT TCCACCTTTT GATTCTGGG  
AGAGACACT CATGAGAAAT TAAGTGATT CGAATTTCAA AGTGGAATA CTAAGACCC

6800  
GTCGTCCAAT TCGATCAAT CACTCAATTT TGTGTGAGA TTGATATAAG TTCAATGGG  
CAGCAGGTTA AGCTAGTTTA GTGAGTTAA ACAACAGTCT AACTATATTC AAGTATCCC

6900  
GATATTGTTT CCACGACAAT CCATTTTAGT AACCTTAGG GGTTCCTAAT TTTGGGTTT  
CTATAACAAA GGTGCTGTTA GGTAAAACTA TTGGGAATCC CCAAAGGTTA AAACCCAAAA

7000  
GAATTGACGC TAATGTCAA TTCATCTAAA GTCCGTTGGA TATGTACTT TGGGATGGG  
CTTAACATGCG ATTACAGTTT AAGTAGATTT CAGGCAACCT ATACATATGA ACCCTACCC

7050  
ATTCATCCTT TTTCTGGGT TCTTTAGATC TTCTCTTAAA AGACTAACAG ATTTGTTGT  
TAAGTAGGAA AAAAGACCCA AGAAATCTAG AAGAGAATTT TCTGATTGTC TAAAAACA

7100  
AAACCCTAGG AAACAGTTAA AAATCCCAT TTTAAAAACA TGTTTTGAAC TTGATGAGTA  
TTTGGGATCC TTTGTCAATT TTTAGGTAA AAATTTTGT ACAAACTTG AACTACTCAT

7150  
AGATTAAATG AAGAAATGAT GTTTTGTGT GGTGTGAAG ATGCTTCGGA CACTGGAGAG  
TCTAATTACC TTCTTTACTA CAAAAACACA CCACACTTCG TACGAAGCCT GTGACCTCTC

7200  
GTACCAAAAG TGTAATATG GAGCACCAGA ACCCAATGTG CCTTCAAGAG AGGCCCTAGC  
CATGGTTTTC ACATTGATAC CTCGTGGTCT TGGGTACAC GGAAGTTCTC TCCGGAATCG

7250  
AGTTGTACCC AATCTCTTC TCTTTCTCT AATTACCTTA ATTAATTACT CTCAATTTT  
TCAACATGGG TTAAGAGAAG AGAAGAAGA TTAATGGAAT TAATTAATGA GAGTTAAAA

7300  
ACTTTGATTT TTAGAGTCAA ATGATTAATG TTATAATTT TCAATACTT CAGGAACCTA  
TGAAACTAAA AATCTCAGTT TACTAATTAC AATATTAAC AGTATATGAA GTCTTGAAT

7400  
GTAGCCAGCA GGAGTATCTC AAGCTTAAGG AGCGTTATGA CGCCTTACAG AGAACCCAAA

CATCGGTCGT CCTCATAGAG TTCGAATTC TCGCAATACT GCGGAATGTC TCTTGGGTTT  
 7450 7500  
 GGTAACCTAA TTAGCTTCTT CAGCTACCTT CAGAGAGTGT TTGTTTTTTT AGTAGATTTT  
 CCATTTGATT AATCGAAGAA GTCGATGGAA GTCTCTCACA AACAAAAAAA TCATCTAAAA  
 7550  
 TTTGATGGTT TTGATGTTGA AATAGGAATC TGTGGGAGA AGATCTTGGG CCTCTAAGTA  
 AAACTACCAA AACTACAAC TTATCCTTAG ACAACCTCT TCTAGAACCT GGAGATTCAT  
 7600  
 CAAAGGAGCT TGAGTCACCT GAGAGACAGC TTGATTCTTC CTTGAAGCAG ATCAGAGCTC  
 GTTTCCTCGA ACTCAGTGAA CTCTCTGTCT AACTAAGAAG GAACTTCGTC TAGTCTCGAG  
 7650  
 TCAGGGTACT ACTTTGTTCA TCAATATCTT TATACACTGA TCTATTTCCT TAGTAAGATT  
 AGTCCCATGA TGAACAAGT AGTTATAGAA ATATGTGACT AGATAAAGGT ATCATTCTAA  
 7700  
 AAATTTGGTG TTTAATTCTG CAGACACAGT TTATGCTTGA CCAGCTCAAC GATCTTCAGA  
 TTTAAACCAC AAATTAAGAC GTCTGTGTCA AATACGAAC GTGTCGAGTTG CTAGAAGTCT  
 7750 7800  
 GTAAGGTAAA TAAAGAAACA CTCATTCTCC TCTCTAAATT CCTCATCTAA AAGTAATGTA  
 CATTCATATT ATTTCTTTGT GAGTAAGAGG AGAGATTTAA GGAGTAGATT TCTATTACAT  
 7850  
 ACCAAGAAAA CACAAATATT TGGAGCAGGA ACGCATGCTG ACTGAGACAA ATAAACTCTT  
 TGGTTCTTTT GTGTTTATAA ACCTCGTCCT TCGCTACGAC TGACTCTGTT TATTTTGAGA  
 7900  
 AAGACTAAGG GTAATTAATA TACATTCTCA TATCACCAAA TTAATGCATC ACTAAATTTG  
 TTCGTATCC CATTAATTAT ATGTAAGAGT ATAGTGGTTT AATTACGTAG TGATTTAAAC  
 7950  
 GTTATAATGT GTGTGTGTAT ATACATATGT GACAGTTAGC TGATGGGTAT CAGATGCCAC  
 CAATATTACA CACACACATA TATGTATACA CTGTCAATCG ACTACCCATA GTCTACGGTG  
 8000  
 TCCAGCTGAA CCCTAACCAA GAAGAGGTTG ATCACTACGG TCGTCATCAT CATCAACAC  
 AGGTCGACTT GGGATTGGTT CTTCTCCAAC TAGTGATGCC AGCAGTAGTA GTAGTTGTG  
 8050 8100  
 AACACACTC CCAAGCTTTT TTCCAGCCTT TGGAAATGTA ACCCATTTCT CAGATCGGGT  
 TTGTTGTGAG GGTTCGAAAG AAGTCCGAA ACCTTACACT TGGGTAAAGA GTCTAGCCCA  
 8150  
 AACTTTAGAC TAGTATAACC AATTTGATTT GAGTCTTATT ATAAGCTTTT CTTAAGAAAG  
 TTGAATCTG ATCATATTGG TTAACTAAA CTCAAGATA TATTGAAAAA GAATCTTTTC  
 8200  
 TATCTCAAC TACTAAATTT TATGGAGCAG GTATCAGGGG CAACAAGATG GAATGGGAGC  
 ATAGAGTTTG ATGATTTAAA ATACCTCGTC CATAGTCCCC GTTGTCTAC CTTACCCTCG  
 8250  
 AGGACCAAGT GTGAATAATT ACATGTTGGG TTGGTTACCT TATGACACCA ACTCTATTTG  
 TCCTGGTTCA CACTTTATTA TGTACAACCC AACCAATGGA ATACTGTGGT TGAGATAAAC  
 8300  
 AATCTTTCTC ACTTAATCAA TCCCTCTCTT TTTTTTTTGA CATTTTAAAG ATGATGTTTC  
 TTAGAAAGAG TGAATTAGTT AGGGAGAGAA AAAAAAAACT GTAAAAATTC TACTACAAAG

Fig. 3i

09869582-023807

8350 8400  
TATTTTATTA CCTCTCAT GTTTTCTGTC TTGTGTGCAT GTGTGTGTGT AATGTTTATG  
ATAAAATAAT GGAGAGAGTA CAAAAGACAG AACACACGTA CACACACACA TTACAATAATC

8450  
CCCTTCIATT ATTCAATAAT TTTTTCGACA ATTTTGCTTC CTATTTTATC CCATTACTCC  
GGGAAGATAA TAAGTTATTA AAAAAGCTGT TAAACGAAG GATAAAAAATG GGTAAATGAGG

8500  
TAACTTCCTT GATCCAGTTT CTTTAAAT AACTCCCAT TTATGTCATG TATCTAACCA  
ATTGGAAGGA CTAGGTCAAA GAAAATTTTA TTGAGGGTAA AATACGTACA ATAGATTGGT

8550  
ATTCTCTTAA CTATGATTTA TGTACGATA TAACCTCACAG TCTCACACTA TCTATTTGGT  
TAAGAGAATT GATACTAAAT ACCATGCTAT ATTGAGTGTG AGAGTGTGAT AGATAAACCA

8600  
GTTTTTTTGT TTGAGTCTTG AGAAGGGACC GCTTGTTTAT CTCTCTTGTT AAAGAGCAAC  
CAAAAAACA AACTCAGAAC TCTTCCCTGG CGAACAAATA GAGAGAACA TTTCTCGTTG

8650 8700  
TCACTGGCCA CTGCTTATGT ATCTGTAGGC CCCACCTATA TCATTTTGGC TATATCTATA  
AGTGACCGGT GACGAATACA TAGACATCCG GGTGGGATAT AGTAAACCCG ATATAGATAT

8750  
CTTTGTGAGA GGGAGTATTA CTATAGAGAA GAAGATAAAT TTGGTTCTAA TATATCTTGC  
GAAACATCT CCTCATAAT GATATCTCTT CTTCTATTTA AACCAAGATT ATATAGAACG

8800  
AGGTAGTTGA TATTCCTAAT TATCATGAAG ATTTGATAGA CAAGTTTATC AGATACCTTA  
TCCATCACT ATAAGAGTTA ATAGTACTTC TAAACTATCT GTTCAAATAG TCTATGGAAT

8850  
AACATAGGTT TAAGATCTCA ATTGAAATGT GAATTCACCC GACGATTAGA GTTACGATCT  
TTGTATCCAA ATTCTAGAGT TAACTTTACA CTTAAGTGGG CTGCTAATCT CAATGCTAGA

8900  
AAGGAAGCGT TTCTTGAATT TTGAGTTTGT TTGATCAAGA GTAGAATGCT TTTCTATTAC  
TTCCTTCGCA AAGAACTTAA AACTCAACA AACTAGTTCT CATCTTACGA AAAGATAATG

8950 9000  
TAAGGTTGTT AATGCTTATA TTCCATGACC AAGGCCAAGA GAACAAACAA AAACATGGTG  
ATTCCAACAA TTACGAATAT AAGGTACTGG TTCCGGTTCT CTTGTTTGT TTTGTACCAC

9050  
CCTCTTGATG TATAGTAATG GCTCTTAATG GTCATATACA GAGAAAAAAA GATTAATGTC  
GGAGAAGTAC ATATCATTAC CGAGAATTAC CAGTATATGT CTCTTTTTTT CTAATTACAG

9100  
GTTGCACAAG CTTGAAGTTA CTTACTCCTC GTCTTCTCTA TTAGTGTCTT CGTCTTCTC  
CAACGTGTTT GAACCTCAAT GAATGAGGAG CAGAAGGAGT AATCAGAGAA GCAGAAGGAG

9150  
ATCCTCATCG TCCCAATAT AGGGCTTCAT CTACTTGAAA ACCAAATGCT CATGCACTGG  
TAGGAGTAGC GAGGGTTATA TCCCGAAGTA GATGAACCTT TGGTTTACGA GTACGTCAAC

9200  
AAAAAGATAA CAGAGGTTCA AATTAAGGCA AACAAAACTA CAAGTGAGAA AGGGAACCTA  
TTTTTCTATT GTCTCCAAGT TTAATTCGTT TTGTTTGTAT GTTCACTCTT TCCCTTTGAT

9250 9300  
CAAGTGGTAA GATGTAAATGT TTTGACTCAA AACCATGCA GACAATGAAA AAAAGTATTG

GTTCACCATT CTACATTACA AAACCTGAGTT TTGGTCTAGT CTGTTACTTT TTTTCATAAC  
 ATACAAAAG TCCATCCGGA AGCATAATTA CCGCTTGAGT GATGTATCA GAGATGTCTG  
 TATGTTTTTC AGGTAGGCCT TCGTATTAAT GGCGAACGTC CTACAGTAGT CTCTACAGAC  
 TTAGTCGGCG AATGSCATAG ATGGTGAGCG GACCAGAGTA GCGTAAATCC TCTAAATACT  
 AATCAGCCGG TTACCGTATC TACCACTCGC CTGCTCTCAT CGCATTTAGG AGATTTATGA  
 GTCTAAAAGC CGGACCGACC CGACAAGGAT CACAGTCAAG GGAATAGGA CACCTATTGA  
 CAGATTTTCG GCCTGGCTGG GCTGTTCTTA GTGTCAGTTC CCCTTATCTT GTGGATAACT  
 TATCCAAAA GACTGTTGTT ACAGCCACAT CATCCTTGTC CAACTGGGTA GCCCAAAGGG  
 ATAGGGTTTT CTGACAACAA TGTGGTGTGA GTAGGAACAG GTTGACCCAT CGGGTTTCCC  
 AAACATAGTTG TGGTAAGAGC TTGTTTGACT CAAAAATGG CTAAGTAGGA TGATGCTGAA  
 TTTGATCAAC ACCATTCTCG AACAACTGA GTTTTTTACC GATTGATCTT ACTACGACTT  
 TTACCATCTG TTCATGTTTT TGACTAGAGA GATGGGTAGT GAAATTTTCA AAGCCTTTGC  
 AATGGTAGAC AAGTACAAAA ACTGATCTCT CTACCCATCA CTTTAAAGT TTCGGAAACG  
 AAAACGCTGT TGGGACCTGT TTCAGAAAA GACTTAAAG ACTTGAGACT CAAGGAAAA  
 TTTTGGGAC ACCCTGGACA AAGTCTTTTT CTGAATTTTC TGAACCTGTA GTTCTTTTAA  
 AATATCCATT ATATAAGAT GACAACAAAT ATTAACGGAA GTAGGAGTGA TTGAGAACGA  
 TTATAGGTAA TATATTTCTA CTGTTGTTTA TAATTGCCTT CATCTCACT AACTCTTGCT  
 TTCTAGTAGA AGAGACGGCT CGCAGGACGT CGTTTATAAT AGGCCAATGG CAGAGATAGT  
 AAGATCATCT TCTCTGCCGA GCGTCTGCA GCAATATTA TCCGGTTACC GTCTCTATCA  
 GAGAGGACCG GAGTAGCCTA AATTCTTTAA ATGTCGTTTG ATACACGGAC CAACTAGACG  
 CTCTCTGGC CTCATCGGAT TTAAGAAAT TACAGCAAC TATGTGCTGC GTTGATCTGC  
 AGCATCATAC TCAGAGGGAA CCGGACACGT CTTGATATCC CAGAAGACCG ATGTTACGGC  
 TCGTAGTAGT AGTCTCCCTT GCCTCTGCA GAACATAGG GTCTTCTGSC TACAATGCCG  
 CTTAGCTTGC TGCCGCGTTG CTTTCATCAT CATCTTCTCC TTTTAACTTA TAAACGAAAT  
 GAATCGAAGC ACGGCGCAAC GGAAGTAGTA GTAGAAGAGG AAAATTAGAT ATTGCCTTTA  
 CAACATCAG ATAAAGCATT CGAAAGATA GATTGACACA GGTAAATCA TCCACTTCAG  
 GTTTGTAGTC TATTTCTGTA GCTTTTCTAT CTAACCTGCT CCAATTTAGT AGGTGAAGTC  
 AGAAAAAGAG AGGGACATGG CCGTAAACAA TGAGATAAGG ATCGGCCTAA TGTTTATAAT  
 TCTTTTTCTC TCCTGTGACC GGCATTGTTT ACTCTATTCC TAGCCGGAAT ACAAAATATA  
 GGGCTTGGCT TTAATGGGCC TACAGTTTCT TGAATCAGCC TTATGCATGA GTCCTAGTAT  
 CCCGAACGCA AATTACCCGG ATGTCAAAGA ACTTAGTCGG AATACGTACT CAGGATCATA

Fig. 3k

09869582.02286

10250  
TTTATCAACT TTTTITTTTC ATCTTCTTTT AGTTACAATA GATTTAAAGT GTTTTITGTT  
AAATAGTTGA AAAAAAAG TAGAAGAAA TCAATGTTAT CTAAATTTC AAAAAACAA

10300  
AATGCCATG CAAAATTGG TAAGTGTITA TAACATGTT CCTCACTTCA AAATTTAAAG  
TTACGTAAC GTTTTAAACC ATGACAAAT ATTGTAACAA GGAGTGAAGT TTTAAATTTT

10350  
CACCATTAA AAAAGCTATA CATATAITTA TAACTTGGGT TTTGTGCAAA AAAAAACAA  
GTGTAATAA TTTTCGATAT GTATATTAA ATTGAACCA AAACACGTTT TTTTGTGTTG

10400  
AAATTAACTT TCAATTTTAA ATAAATGCAA TTCAATACCG CAATATCAAA AGTAACCCGT  
TTTAAATGGA AAGTAAATTT TATTTACGTT AAGTTATGCG GTTATAGTTT TCATTGGGCA

10450  
ATAACCTTTA TTCGTGTATA GATTTTAGAA ACAGTATAAG TCAAATTATC AAAACTATGT  
TATTGGAAAT AAGCACATAT CTAAATCTTT TGTCATATTC AGTTTAATAG TTTTGATACA

10550  
TGTTTTAAGC ATTTTAAAAA TAAGAATAAT AATAATGTTG AAGGTTGGAT TTGAACCCAT  
ACAAAATTCG TAAATTTTTT ATTCTTATTA TTATTACAAC TTCCACCTTA AACTTGGGTA

10600  
GAACATAGA ACAAACCAA GCATGCATAA CCACATGCGC CGAACAAACC AAAAAGTCAT  
CTTGATATCT TGTTTGGTTT CGTACGTATT GGTGTACGCG GCTTGTGTTG TTTTGTAGTA

10650  
GGCTTTGTTA AACATATAAA AATATTGCAA TAAAAATGT GGGGAACCTG TTACAGTTT  
CCGAAACAAAT TTGTATATTT TTATAAGCTT ATTTTITACA CCCCTTGAAC AATGTCAAA

10700  
TGGTCTTTT TGGAGCCATT TTTTCAACA CAGATATTGT TAAGAGTTT CAGGTAACAA  
ACCAAGAAAA ACCTCGGTAA AAAAAGTTGT GTCTATAACA ATTCTCTCAA GTCTTATTTG

10750  
TGATATTTAT GCAGGGAACC ACAGTAGGCT ATAATGAAAG TCACTCTGTG AAGTTAGCAG  
ACATATAATA CGTCCCTTGG TGTATCCGA TATTACTTTC AGTGTGACAC TTCAATGCTC

10850  
ACAAGTTTTT ACTTAAAGAT GTGAGTTGIG ATCTTTTGA TGTAAGTCTT GATGTATATG  
TGTTCAAAA TGAATTTCTA CACTCAACAG TAGAAAACT ACATTCAGAA CTACATATA

10900  
TTGACAAAT ATATAAGTTT GTATTGCATA TTCTATGACT TACGAAGTTT CTATGCAAGA  
AAGTGTAAA TATATTCAAA CATAAGCTAT AAGATACTGA ATGCTTCAAA GATACGTTCT

10950  
AAAGCCGGGA GAAAATTTCC GTCAAGTAAC TAAGAGATCG TAATTTCTGT CTGAAGAACA  
TTTCGCCCTT CTTTAAAGG CAGTTCAATG ATTTCTAGC ATTAAGAACA GACTTCTTGT

11000  
ACCTTTTTT ATTATTGAG TTTAGTTGCG CAACAGTGAA CAAAGGGACG AGATACCATTA  
TGGGAAAAA TAATAAAGT AAATCCAACG GTTGTCACCT GTTCCCTGCG TCTATGGTAT

11050  
TGACAAATAT CCTCTAACGC CATTTCACAA GTTAATCAAC AGTGTCTGGT ATATGCAATG  
ACTGTTTATA GGAGATTGCG GTAAAGTTGT CAATTAGTTG TCACAGCCGA TATACGTACA

11150  
GCTAACAATG CACAAGAACA TTGTCAACAT CCCGTGAATA TGAATATTAA TGATTATGAA

Fig. 3f

09869582-02260

12050  
TCAAATATGA TAGATTCCCTA CTATAAATAT AGACTCGTGA ATAATACTCG AATCAGTCTC  
AGTTTATACT ATCTAAGGAT GATATTTATA TCTGAGCACT TATTATGAGC TTAGTCAGAG

Fig. 3m

0985952, 072502



12100  
 TGAGGTTTTC CTGGAAAAGA AAAACCGAAG AGCTCAAAAC AGAGTGCCTT TGTTTCTGGG  
 ACTCCAAAAC GACCTTTTCT TTTTGGCTTC TCGAGTTTTC TCTCAGCAA ACAAGACCC

12150  
 AATCTTCAAG CCTCTCACTT GCGAAGACGA AGCTTACTCG TAAGTGATT ATCTTCTTCT  
 TTAGAAGTTC GGAGAGTGAA CGCTTCTGCT TCGAATGAGC ATTCACATA TAGAAGAAGA

12200  
 TCTTCTCTT TTCAATTCTT TTTTCGTTCA TCTGAAATGT GAAATCATGT GACGTGACGA  
 AGAAGAAGAA AAGTTAAGGA AAAAGCAAGT AGACTTTACA CTTTAGTACA CTGCACTGCT

12250 12300  
 TTAGGTTAAC GATCGAATT CTTAATTTCG TATATGATTA TCTTCTAGTT TCTTGATCAG  
 AATCCAAATG CTAGCTTAAA GAATTAAGC ATATACTAAT AGAAGATCAA AGAAGTACTG

12350  
 CACATCTTGT TGTTTTCTT CAATCGAGAC TGATTCTAGA TGTCTTAAAG GATCTTGTTC  
 GTGTAGAAC ACAAAAGAAA GTTAGCTCTG ACTAAGTCT ACAAGAATTC CTAGAACAAG

12400  
 GATGAACCTT GCATGAATCA TCCATATCGA CGAAGTGCTG TGATCTTCTT GTTGTATTGG  
 CTACTTGAAA CGTACTTAGT AGGTATAGCT GCTTGACCAG ACTAGAAGAA CAACAATACC

12450  
 ATTAAGTTTC TTGAGATACA AGAAAGGCTT CAATGATCAA TCTGATCTGT TTTGATGAAC  
 TAATTCAAAG AACTCTATGT TCTTTCCGAA GTTACTAGTT AGACTAGACA AAACACTTGT

12500  
 ACAATCTTTT ATCTTTGAAC CATGGATAAG GTCAATTTC CACCATGGCT GGAGGAAGIT  
 TGTTTAGAAA TAGAAACTTG GTACCTATTC CAGTTAAAGT GTGATACCA CCTCTCTCAA

12550 12600  
 TATCACCGGC GTCATCTTTG GAAGATGTAA AGGCATACGT CAATGCTGTG GAGGTGCGAT  
 ATAGTGGCCG CAGTAGAAGC CTCTACATTT TCCGTATGCA GTTACGACAC CTCCAGCGTA

12650  
 TGCAGSAAAT GGAACCTGCA AGATTTGGAA TGTTTGTAAG ACTCTTTGGT GGTTTTACAG  
 ACGTCCTTTA CCTTGAGCCT TCTAAACCTT ACAACATTC TGAGAAAGCA CCAAAATGTC

12700  
 CTCCTAGGTG TGTTTGGTTT GCTCTTAAAC AGTCTAAAGA ACAATGACAC ATGTGAGAAAT  
 GAGGATCCAC ACAACCAAA CGAGAAATTT TCGATTTCTT TGTACTGTG TACACTCTTA

12750  
 TGATTCTGAT GTTATTTTTC TCTTTGTAGG ATCGGTATGC CTACTTTTCTG TGCACGCTAG  
 ACTAAGACTA CAATAAAGG AGAAACATCC TAGCCATACG GATGAAGATC ACGTGCCTAC

12800  
 CAGGACCTCT TGAAGATCA CCCGAGTCTG TGCTCTGGTT TAAATGTCTT ACTTCCACCT  
 GTCTGAGAGA ACTTTCTAGT GGGCTCAGC ACAGAACCAG ATTACAGAA TGAAGGTGGA

12850 12900  
 GAGTATCAGT TAACCATACC TCCCAGGCT AGCGAAGAGT TTAATAGGT GGTGTGAAGT  
 CTCATAGTCA ATTGGTATGG AGGCTCCGA TCGCTTCTCA AAGTATTCOA CCAACCTTCT

12950  
 AGCGTACCAG TACCACCAA GGTGGTTTGA AGAAGTCTAC CAGCTCCGGA GCCTACCAT  
 TCGCATGGTC ATGGTGGTTT CCACCAACT TCTTCAGATG GTGCAAGGCT CCGATGGTAT

13000  
 GATGATGCGA CTTCATACCT TATTGCTGTG AAGGAAGCCT TTCATGATGA ACCTGCAAAA

Fig. 3n

09/869582-022802

CTACTACGCT GAAGTATGGA ATAACGACAC TTCCTTCGGA AAGTACTACT TGGACGTTTT

13050  
TATGGGGAAA TGCTTAAGCT CTTGAAAGAT TTTAAAGCTC GCAGGTATGT ATTAGTTCTT  
ATACCCCTTT ACGAATTCGA GAACCTTCTA AAATTTTCGAG CGTCCATACA TAATCAAGAA

13100  
TTCTCCATGT TATGTTTGAT TTTTTCAGTC TACAGAACAA ACACATTATG TGAATTGATT  
AAGAGGTACA ATACAAAATA AAAAAGTCAG ATGTCTTGTT TGTGTAATAC ACTTAACATA

13150  
CTGATGTTAC TAAGTCTCTT TGTAGAGTCG ATGCCGCTTG TGTCAATTGT AGGGTGGAGG  
GACTACAATG ATTCAGAGAA ACATCTCAGC TACGCCGAAC ACAGTAACGA TCCACCTCC

13200  
AATCATGAA AGATCACTTG AATCTGCTTT TTGCTTTCTG TGTCTTCCTT TCAGCTACAA  
TTGAGTACTT TCTAGTGAAC TTAGACGAAA AACCAGAGAC ACAGAAGGAA AGTCGATGTT

13250  
CGAGTTTTAC CACGAAGCTT AAGGTATAGA GTGCTTATAG TTACCATTGG ATGTTTCCTA  
GCTCAAAATG GTGCTTCGAA TTCCATATCT CACGAATATC AATGTTAAAC TACAAGGAT

13300  
TATGTTAACT TGTGGTTTAA GTAAACAAAT TGTCCATGTG CAGGCAAGGT TTCAGGGCGA  
ATACAAATGA ACACCAAATT CATTGTTTAA ACAGGTACAC GTCCGTTCCA AAGTCCCGCT

13350  
TGGTAGTCAA GTAGTTGACT CAGTCTCTCA GATAATGAGA ATGTACGGTG AGGGAACAA  
ACCATCAGTT CATCAACTGA GTCAAGAAGT CTATTACTCT TACATGCCAC TCCCTTTGTT

13400  
GTCCAAACAT GATGCGTATC AGGAGGTAGG CTTCTTGTTA GGATACCTTG TGTGTGTGTG  
CAGGTTTGTA CTACGCATAG TCCTCCATCC GAAGAACCAT CCTATGAAAC ACAACACACA

13450  
TGCACTTTCT TAgTTCTTTG GTTTGATTG CTTTGTATC TTTTGCAAGT CGTTGCACTT  
ACGTGAAAGA ATCAAGAAAC CAAACTAAAC GAAACAATAG AAAACGTCCA GCAACGTGAA

13500  
GTTCAGGTC ATGACGATTT AGTCATGGAG CTTTCACAAA TTTTGACTGA TCCACCTACT  
CAAGTCCCAG TACTGCTAAA TCAGTACCTC GAAAGTGTTT AAAACTGACT AGGTGGATGA

13600  
GGAGTCTAGA GATAGCCAGA TAGCTAAGGA GAGTACTGGA AGACTGTAAT ATACCATAAG  
CCTCAGATCT CTATCGGTCT ATCGATTCTT CTCATGACCT TCTGACATTA TATGGTATTC

13700  
AGACGAAAAA GAAAGTAGAG CTTCTCACGA AAAGAGAGTG TTTTGTAGTT TCTTTTGCAA  
TCTGCTTTT CTTCATCTC GAAGAGTGCT TTCTCTCAC AAAAATCAAA AGAAAACGTT

13750  
ACATTAGAGT TTTGTTTGAT TAACATGACA TTCAAAAATA TGCTATGCTT CTATGTTGAG  
TGTAATCTCA AAACAACTA ATTGTACTGT AAGTTTTTAT ACGATACGAA GATACAACTC

13800  
GTGTACAATG AATTGGTGTA TAAGAGACTA AAAGAGAGTG TATAGTTTCT TTGTTGAGGT  
CACATGTTAC TTAACCAATC ATTCTCTGAT TTCTCTCAC ATATCAAGA ACAAACCTCA

13850  
TTCTTTTATG TTGAGGTGTT CAATATGCTA TTTTCAGGGT AATCTTTTAA TAAGAACTG  
AAGAAAATAC AACTCCACAA GTTATACGAT AAAAGTCCCA TTAGAAAAAT ATTCTTTGAC

27/43

13950  
 AGAAGGGAAA CACTCAAAAA ACAGAGTTCA ACGTAGAAAC AAAACAGAG AGGTGAATC  
 TCTCCCTTT GTGAGTTTTT TGCTCAAGT TGCATCTTG TTTTGTCTC TCCACTGAG

14000  
 ATGAAAGATC AATTTAACTT GCTTGTGATG ATTGGCTTAT CAAGAGAATT GAAGAGATTC  
 TACTTTCTAG TTAATTTGGA CGAACACTAC TAACCGAAT TAATCTTAA TTCTCTAAG

14050  
 ACGATTACAC AAATTCAATT CTTAAAGACA AGAGTAGACT GCTAATTTCTT ATTAAGGCTG  
 TGTCTAATGTG TTTAAGTTAA GAATTTCTGT TCTCATCTGA CGATTAAAGAA TAATTCGAGC

14150  
 TTAATGCTTC TTGAGAGCAT TGACCTTTTC CCTGAGGTAA TAAAGCTTGG CTCTCTTAC  
 AATTACGAAG AACTCTCGTA ACTGGAAGG GGACTCCATT ATTTGGAACC GAGAAGAATG

14200  
 TTTCTTTCTG TCCACCACCT TAATCACCTT CAGGTTTGGG GAATACCTGT CACCAAAAA  
 AAAGAAGAAC AGGTGGTGA ATTAGTGGGA GTCCAAACCC CTTATGAGCA GTGTTTTGTG

14250  
 CCTCCACTTA CATCAGTATT TTCCATGACC AAGGCAAAAC AAGAGAATCAT ACAAACATG  
 GGAGTGAAAT GTAGTCATAA AAGGTACTGG TTCCGTTTGT TTCTCTGTA TGTTTGTAC

14300  
 GTGGCTCTTG ATTATAATTA TGSCCTCTTA TGCTCATATA CAAAAGTCTG AGAGAAAAAG  
 CACCGAGAAC TAATATTATT ACCGAGAATT ACCAGTATAT GTTTTCAGAC TCTCTTTTTC

14350  
 ATTAAGTGG GTGCACAAGC TTGAAGCTTG AAGTTACTTA CAAGGGGAAC ATGGATTGCA  
 TAAITTCACC GACGTGTTTG AACTTCGAAC TTCAATGAAT GTTCCCTGTG TACCTAAGCT

14450  
 CGCCCACTCC AGCAACAAGC CTTCTAATTC TAAATGTTGA GTTGAGACCA GCATTACGCC  
 CGGGGTGAGG TCGTTGTCTG GAAGATTAA ATTACAACT CAACTCTGGT CGTAATGGCG

14500  
 TTGCTATGAC GACGCTTTT ACGATTGATA CACGCTCTTT GTTCTCAGGC ACTTCCTGT  
 AACGATACTG CTGCGGAAAA TGCTAATCTAT GTGCGGAGAA CAAGAGTCCG TGAAGGACAA

14550  
 CAAACAAGT AAATGAAAGG TTCACTTAG AAGATGAAAG ATAGTTTGTAT CTTACTCACC  
 GTTTGTTTCA TTACTTTTCC AAAGTGAATC TTCTACTTTC TATCAACTA GAATGAGTGG

14600  
 CAAGAAAAAG AAATTACAAC CTAGGCCAAC AGTAGTTACC ACTTTTAGCT GCACAATGTA  
 GTTCTTTTTC TTTAATGTTG GATCGGGTGG TCATCAATGA TGAATAATCGA CGTGTATCAT

14650  
 ACCAGGCTTT ATCTCTGGAA TCTCTCTAAG AGTTCTCACT TCCTCAACTG CTTCCTTGTG  
 TGGTCCGAAA TAGAGACCTT AGAGAGATTC TCAAGAGTGA AGGAGTTGAC GAAGGAACAG

14700  
 TACATCTGCT AGAGGATTGT GACATCGGTG CTTCTTGTG TACATGATAT ATCTAAATAC  
 ATGTTAGAGG TCTCTAACA CTGTAGCCAC GAAGGAACAG ATGTACTATA TAGATTTATG

14750  
 AAGTGTCAAG TTCGAGTTGT AGTACCTGCA TAATATGCTT AGCGTTTTTA TCAAGCCGCT  
 TCAACAGTTC AAGCTCAACA TCATGGACGT ATTATAGCAA TCGCCAAAAAT AGTTCCGGCA

14800  
 TAAACTTGAT TCTCTGAGGC ACAACACAT CTGACTCAGG GGATCCTTGA ACAGAAATCTC

Fig. 3p

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ATTTGAACTA AGAGACTCCG TGTTGTGTGA GACTGAGTCC CCTAGGAACT TGCTTAGAG

14900

CAGTGGTGGA AAAACACCTC GACGAAAAAT TTGTTTCTG CCAAAAAAT ATTCCCAAGA  
GTCACCACCT TTTGTGGAG CTGCTTTTCA AAACAAGAC GGTTTTTTA TAAGGTTTCT

208220.2856360

09/869582

[illegible]

Figure 4

Sequence Range: -12 to 815

0 2 1 7 8 0 0 0

Fig. 5

Sequence Range: -1699 to 3669

-1650  
GAATTCCTCCG GATCTCCATA TACATATCAT ACATATATAT AGTATACTAT CTTTAGACTG  
CTTAAGGGGC CTAGAGGTAT ATGTATAGTA TGTATATATA TCATATGATA GAAATCTGAC

-1600  
ATTTCTCTAT ACACTATCTT TTAACCTATG TATCGTTTCA AAACCTCAGGA CGTACATGTT  
TAAAGAGATA TGTGATAGAA ARTTGAATAC ATAGCAAAGT TTTGAGTCTT GCATGTACAA

-1550  
TTAAATTTGG TTATATAACC ACGACCATTT CAAGTATATA TGTCATACCA TACCAGATTT  
AATTTAAACC AATATATTGG TGCTGGTAAA GTTCATATAT ACAGTATGGT ATGCTCTAAA

-1500  
AATATAACTT CTATGAAGAA AATACATAAA GTTGATTAA RATGCAAGTG ACATCTTTTT  
TTATATTGAA GATACTTCTT TTATGTATTT CAACCTAATT TTACGTTTAC GTTAGAAAA

-1450  
AGCATAGGTT CATTTGGCAT AGAAGAAATA TATAACTAAA AATGAACCTT AACTTAAATA  
TCGTATCCAA GTAAACCGTA TCTTCTTTAT ATATTGATT TTAAGTGAAT TGAATTTAT

-1400  
GATTTTACTA TATTACAATT TTTTCTTTTT ACATGGTCTA ATTTATTTTT CTAAAAATTAG  
CTAAAAATGAT ATAATGTTAA AAAAGAAAAA TGTAACGAGT TAAATAAAAA GATTTTAATC

-1350  
TATGATTGTT GTTTTGATGA AACAAATAATA CCGTAAGCAA TAGTTGCTAA AAGATGTCCA  
ATACTAACAA CAAAACCTACT TTGTTATTAT GGCACTGGTT ATCAACGATT TTCTCAGGT

-1300  
AATATTATA AATTACAAAG TAAATCAAAT AAGGAAGAAG ACACGTGGAA AACACCAAT  
TTATAAATAT TTAATGTTTC ATTTAGTTTA TTCTTCTTC GTGCACTT TTGTTGTTTA

-1250  
AAGAGAAGAA ATGGAAAAAA CAGAAAGAAA TTTTAAACA AGAAAAATCA ATTAGTCCTC  
TTCTTCTCTT TACCTTTTTT GTCTTCTTTT AAAAAATTTG TCTTTTTAGT TAAACAGGAG

-1200  
AAACCTGAGA TATTTAAAGT AATCAACTAA AACAGGAACA CTTGACTAAC AAAGAAATTT  
TTTGAGCTCT ATAAATTTCA TTAGTTGATT TTGTCCTTGT GAACGTGATT TTCTTTAAA

-1150  
GAAATGTGGT CCAACTTTCA CTTAATTATA TTGTTTCTC TAAGGCTTAT GCAATATATG  
CTTTACACCA GGTGAAAGT GAATTAATAT AACAAAAGAG ATTCCGAATA CGTTATATATC

-1100  
CCTTAAGCAA ATGCCGAATC TGTTTTTTTT TTTTGTATT GGATATTGAC TGAATAATAG  
GGAATTCGTT TACGGCTTAG ACAAATAAAA AAAACAATAA CCTATAACTG ACTTTTATTC

-1050  
GGGTTTTTTT ACACTTGAAG ATCTCAAAAG AGAAAACCTAT TACAACGGAA ATTCATTGTA  
CCCAAAAAAG TGTGAACCTC TAGAGTTTTC TCTTTTGATA ATGTTGCCTT TAAGTAACAT

-1000  
AAAGAAGTGA TTAAGCAAAAT TGAGCAAAAG TTTTATGTG GTTTATTTC TATATGATT  
TTTCTTCACT AATTCGTTTA ACTCGTTTCC AAAAATACAC CAAATAAAGT AATATACTAA

-950  
GACATCAAT TGTATATATA TGGTTGTTTT ATTTAACAAT ATATATGGAT ATACAGTACA  
CTGTAGTTTA ACATATATAT ACCAACAAAA TAAATTGTTA TATATACCTA TATTGCATGT

-900  
GACATCAAT TGTATATATA TGGTTGTTTT ATTTAACAAT ATATATGGAT ATACAGTACA  
CTGTAGTTTA ACATATATAT ACCAACAAAA TAAATTGTTA TATATACCTA TATTGCATGT

-850  
GACATCAAT TGTATATATA TGGTTGTTTT ATTTAACAAT ATATATGGAT ATACAGTACA  
CTGTAGTTTA ACATATATAT ACCAACAAAA TAAATTGTTA TATATACCTA TATTGCATGT

-800  
GACATCAAT TGTATATATA TGGTTGTTTT ATTTAACAAT ATATATGGAT ATACAGTACA  
CTGTAGTTTA ACATATATAT ACCAACAAAA TAAATTGTTA TATATACCTA TATTGCATGT

Fig. 6a

20020222.022800

-750  
 AACTAAATAT GTTTGATTGA CGAAAAAATA TATATGTATG TTTGATTAAAC AACATAGCAC  
 TTGATTTTATA CAAACTAACT GCTTTTTTTT ATATACATAC AAACATAATTG TTGTAATCGTG

-700  
 ATATTCAACT GATTTTTGTC CTGATCATCT ACAACTTAAT AAGAACACAC AACATTGAAA  
 TATAAGTTGA CTAAAAACAG GACTAGTAGA TGTGAAATTA TTCTTGTGTG TTGTAACITT

-650  
 AAATCTTTGA CAAAATACTA TTTTTGGGTT TGAAATTTTG AATACTTTACA ATTATTTCTT  
 TTTAGAAACT GTTTTATGAT AAAAAACCAA ACTTTAAATC TTATGAATGT TAATAAGAA

-600  
 TCGATCTTCC TCTCTTTTCT TAAATCTGTC GTACAAATCC GTCGACGCAA TACATTACAC  
 AGCTAGAAGG AGAGAAAGGA ATTTAGGACG CATGTTTAGG CAGCTGCGTT ATGTAATGTG

-550  
 AGTTGTCAAT TGGTTCTCAG CTCTACCAA AACATCTATT GCCAAAAGAA AGGCTATTTT  
 TCAACAGTTA ACCAAGAGTC GAGATGGTIT TTGTAGATAA CGGTTTTCTT TCCAGATAAA

-450  
 GTACTTCACT GTTACAGCTG AGAACATTAA ATATAATAAG CAAATTGTAT AAAACAAAGG  
 CATGAAGTGA CAATGTCGAC TCTTGTAAAT TATATTATTC GTTTAAACTA TTTTGTTC

-400  
 GTTCTCACCT TATTCCAAAA GAATAGTGTA AAATAGGGTA ATAGAGAAAT GTTAATAAAA  
 CAAGAGTTGA ATAAGGTTTT CTATCACAT TTTATCCCAT TATCTCTTTA CAATTATTTT

-350  
 GGAAATTAAT AATAGATATT TTGTTGGTGT CAGATTTTGT TTCGTAGATC TACAGGGAAA  
 CCTTTAATTT TTATCTATAA AACCAACCAA GTCTAAAACA AAGCATCTAG ATGTCCTTTT

-300  
 TCTCCGCCGT CAATGCAAAAG CGAAGGTGAC ACTTGGGGAA GGACCAAGTG TCCGTAACAAT  
 AGAGGGGGCA GTTACGTTTC GCTTCCACTG TGAACCCCTT CCGTGTCAAC AGGCATGTTA

-250  
 GTTACTTACC CATTTCTCTT CACGAGACGT CGATAATCAA ATTGTTTATT TTCATATTTT  
 CAATGAATGG GTAAAGAGAA GTGCTCTGCA GCTATTAGTT TAAACAATAA AAGTATAAAA

-200  
 TAAGTCGCA GTTTTATTAA AAAATCATGG ACCCGACATT AGTACGAGAT ATACCAATGA  
 ATTCAGGGGT CAAAATAATT TTTTAGTACC TGGGCTGTAA TCATGCTCTA TATGGTTACT

-150  
 GAAGTCGACA CGCAATCTCT AAAGAAACCA CTGTGGTTTT TGCAAAACAG AGAAACACAG  
 CTTCAGCTGT GCGTTTAGGA TTTCTTTGGT GACACCAAAA ACGTTTGTTC TCTTTGGTCG

-100  
 TTTAGCTTTT CCTTAAACCC ACTCTTACCC AAATCTCTCC ATAAATAAAG ATCCCGAGAC  
 AAAATGAAAA GGGATTTTGG TGAGAATGGG TTTAGAGAGG TATTTATTTC TAGGGCTCTG

-50  
 TCACACACAA GTCTTTTAT AAAGGAAAGA AAGAAAAACT TTCCTAATTG GTTCATACCA  
 AGTTTGTGTT CAGAAAAATA TTTCTTTCT TTCTTTTGA AAGGATTAAAC CAAGTATGGT

1  
 AAGTCTGAGC TCTTCTTTAT ATCTCTCTTG TAGTTTCTTA TTGGGGGTCT TTGTTTTGTT  
 TTCAGACTCG AGAAGAAATA TAGAGAGAAC ATCAAGAAAT AACCCACAGA AACAAAAACA

51  
 101  
 TGGTCTTTTT AGAGTAAGAA GTTCTTTAAA AAAGGATCAA AAATGGGAAG GGGTAGGGTT

Fig. 6b



ACCAAGAAAA TCTCATTCTT CAAAGAATTT TTTCTTAGTT TTTACCTTC CCCATCCCAA  
 201  
 CAATTGAAGA GGATAGAGAA CAAGATCAAT AGACAAGTGA CATTCTCGAA AAGAAGAGCT  
 GTTAACTTCT CCTATCTCTT GTTCTAGTTA TCTGTTCAC TGAAGAGCTT TTCTTCTCGA  
 251  
 GGTCTTTTGA AGAAAGCTCA TGAGATCTCT GTTCTCTGTG ATGCTGAAGT TGCTCTTGGT  
 CCAGAAAACT TCTTTCGAGT ACTCTAGAGA CAAGAGACAC TACGACTTCA ACGGAACAAA  
 301  
 GTCTTCTCCC ATAAGGGGAA ACTCTTCGAA TACTCCACTG ATTCTTGGTA ACTTCAACTA  
 CAGAAGAGGG TATTCCCCTT TGAGAAGCTT ATGAGGTGAC TAAGAACCAT TGAAGTTGAT  
 351 401  
 ATTCTTTACT TTTAAAAAAA TCTTTTAATC TGCTACTTTA TATAGTTTTT TTCCCCCTTA  
 TAAGAAATGA AAATTTTTTT AGAAAATTAG ACGATGAAAT ATATCAAAAA AAGGGGGGAT  
 451  
 AGTTGACTAC TTGATTGGCC CTAATTATTCT ACTACTGCTT TTGTTATATA TTTTCTAGGG  
 TCAACTGATG AACTAAACGG GATTATAAAG TGATGACGAA AACATATATAT AAAAGATCCC  
 501  
 CTTCCATTTT TGGATTTTTT GATTAGCCAG AAAAATGTTT AATACAAATT TGTATAATTT  
 GAAGGTAAAA ACCTAAAAAA CTAATCGGTC TTTTACAAA TTATGTTTAA ACATATTAAA  
 551  
 AAAATCAAAA ACTTTAGGGC CGTAGTGAAG TGAACCTTAG AACACACAGA TTATACCAT  
 TTTTATGTTT TGAATCCCG GCATCACTTC ACTTGGGATC TTGTGTGTCT AATATGTTAT  
 601  
 GTAATTACCT TGATATATTG TGCAATATTCT ATCAGCATCA TATCTTCAA CTCAAGAGAT  
 CATTAATGGA ACTATATAAC ACGTTATAAA TAGTCGTAGT ATAGAAGTTT GAGTCTCTTA  
 651 701  
 ATAGAAGGGT ATGTTAATCT TTGAACTAGG GTTTTGATCC CTAATCATATA ATGAATCCTT  
 TATCTTCCCA TACAATTAGA AACTTGATCC CAAACTAGG GATTGAGTAT TACTTFIGAA  
 751  
 TTGTTCTCCA ATAGCCATGT CTTTCGAATT TCCAGATCTA AGCTCTAATT GATGCCATAG  
 AACAAAGAGT TATCGGTACA GAAAGCTTAA ACGTCTAGAT TCGAGATTAA CTACGGTATC  
 801  
 TAAGAAATA AGATCTGTAG TTTTCACTCG CTCACTGAGT TCGAGTTTTA AATGAAGTGT  
 ATTCTTTTAT TCTAGACATC AAAAGTGAGC GAGTGACTCA AGCTCAAAAT TTACTTCACA  
 851  
 CGTTTCTTTT TTCATATATA GTTGCAACTG GATTATAATT AAAAAATATT ATGGGACGAG  
 GCAAGAAAAA AAGTATATAT CAACGTTGAC CTAATATTAA TTTTATATA TACCCTGTCT  
 901  
 AAAATAATTT AAAATAGATA TAGATAACAA TGTCAAATTG AGAATTTTTT ATTGAAAGA  
 TTTTATTAAA TTTTATCTAT ATCTATTGTT ACAGTTTAAC TCTTAAAAAA TAATCTTTCT  
 951 1001  
 ATATTTAACT TACGAGTTGT TTTTTTCAG CTGTAAAAA ATATCTAATT TGTCTCAGC  
 TATAAATTGA ATGCTCAACA AAAAAAAGTC GACATTTTCT TATAGATTAA ACAAGAGTGC  
 1051  
 ACTGTGTCTT CATGTTTTGC AAATCTAAGC AAAGAAAATG TTTAACTCTG GATCTTAAGA  
 TGACACAGAA GTACAAAACG TTTAGATTCT TTTCTTTTAC AAATTTGAGC CTGAATTTCT

Fig. 6c

09/869582-122602

1101  
 TTATGAACCT GTAATATAAA ACACATATATA GTATTAAATT TGAAC TAGTG TTGCTCTCTTT  
 AATACCTTGAG CATTATATTT TGTGATATAT CATATTTTAA ACTTGATCAC AACGAAGAAA

1151  
 TGCTACTTTG ACTTTAGAAA TTAAACTGGA AACAAAGATG TCAAATCTGA GTAGGGAGTC  
 ACGATGAAAC TGAATCTTTT AATTTTGACT TTGTTTCTAC AGTTTAGACT CATCCCTCAG

1201  
 TTTGACCTCT GGGGATCCAT AAAAGAAGCT AACTCCATCC TAAATCGGC TTCTTACCGA  
 AAACTGAGGA CCCCTAGGTA TTTTCTTGA TTGAGGTAGG ATTTTAGCGG AAGAATGCGT

1251  
 TGGTCAAACCT TAGCTCCAAC AAGCAACAGC TGTTCTTCTT TTTTTTTTTT TTTTTTTTTT  
 ACCAGTTTGA ATCGAGGTTG TTCGTTGTCG ACAAGAAGAA AAAAAAAAAA AAAAAAAAAA

1301  
 TTTAAGCATT GTCCTTGTTT TGAAGAAAAA TAAGATTGGT AAATTGGCAA GATTATAATA  
 AAATTCGTAA CAGGAACAAG ACTTTTTTTT ATTCTAACCA TTAAACCGTT CTAATATTAT

1401  
 ATTTATTATA ATGTGTGCGA CTAAGAAGAT TTCTGTGACC TAATTGTAGC AAAATTAAAG  
 TAAATAATAT TACACAGCGT GATTCTCTTA AAAGACATGG ATTAACATCG TTTTAATTTT

1451  
 AAACCGCAGT TAGAACTCGA AGCTAAGAGC ATAGGGTCTA TGATTCATAC TGTTTTGTTA  
 TTGGCGTCA ATCTTGAGAT TCGATTCTCG TATCCAGAT ACTAAGTATG ACAAAACAAT

1501  
 TTATAAGGT ATCATAGAGA TCGGTACTTG ATTTGTTATA GAAATCTTG GTTTAATTGC  
 AATATTTCCA TAGTATCTCT AGCCATGAAC TAACAATAAT CCTTTAGAAC CAAATTAACG

1551  
 ATAAACCAT CATTAGATT ATCTAAAT GTGATGATAT TTGGTCACA TCTCATATT  
 TATTTTGGTA GTAATCTAAA TAGGATTTTA CACTATPATA AAACCATGT AGAGGTATAA

1601  
 ATTTATATAA TAAATGATA ATGGTTGAT GATAAAGCTA ACCCTAATTC TGTGAAATGA  
 TAAATATATT ATTTACTAT TAACCACTA CTATTTGAT TGGGATTAAG ACACCTTACT

1701  
 TCAGTATGGA GAAGATACTT GAACGCTATG AGAGGTACTT TTACGCCGAA AGACAGCTTA  
 AGTCATACCT CTCTATGAA CTTGCGATAC TCTCCATGAG AATGCGGCTT TCTGTGGAAT

1751  
 TTGCACCTGA TGCCGACGTC AATGTATTTT AATAAATAT TCTCCTTTT ATCCACATAT  
 AACGTGGACT CAGGCTGCAG TTACATRAAG TTATTTATAA AGAGGAAAT TAGGTTGATA

1801  
 ATATTATATC AATCTATTTG TAGTATTGAT GAATTTTAT TGTATAAAAC TTCTGGTACA  
 TATATTATAG TTAGATAAAC ATCATAACTA CTTAAATAA ACATATTTTG AAGACCATGT

1851  
 CAGACAAACT GGTGATGGA GTATAACAGG CTTAAGGCTA AGATTGAGCT TTTGGGAGA  
 GTCTGTTTGA CCAGCTACCT CATATTGTCG GAATTCOGAT TCTAACTCGA AAACCTCTCT

1901  
 AACGAGAGT ACACATTTAC ACTCATACA TTCTATCTA GAAATCGAT CGGGTTCCAT  
 TTGGTCTCCA TGTGTAAATG TGAGTAGTGT AAAGATAGAT CTTTAGCTA GCCCAAGTA

2001  
 TTTAAAGTAA GTTAAATTC ATTGATGCTA TTGAAATCA GGCAATTATCT TGGGAAGAC

AAATTTTCATT CAATTTTAAAG TAACTACGAT AACTTTAAGT CCGTAATAGA ACCCTTCTG

2051  
TTGCAAGCAA TGAGCCCTAA AGAGCTTCAG AATCTGGAGC AGCAGCTTGA CACTGCTCTT  
AACGTTGCGT ACTCGGGATT TCTCGAAGTC TTAGACCTCG TCGTCGAAC TGTGAGAGAA

2101  
AAGCACATCC GCACCTAGAAA AGTATTGCCT TCTGCTATTT CGTTGAACAT ATCTATATAA  
TTCGTGTAGG CGTGATCTTT TCATAACGGA AGACGATAAA GCAACTTGTA TAGATATATT

2151 2201  
CTTAAACGTT TACAAGTGTT ATTATAATGT GAACATTGAA ATACATATGT GTATGTATCA  
GAATTTGCAA ATGTTCCAAA TAATATTACA CTTGTAACCT TATGTATACA CATACATAGT

2251  
ATATATATAT CAGTAATCAA TATCAATTTG ATATGCTAT AGGTTGGTTC GAATGTATGA  
TATATATATA GTCAATTAGTT ATAGTTAAAC TATACAGATA TCCAACCAAG CTTACATACT

2301  
GTTATGTTGT GTATTTTAAAG ACTCCATATT ACTTAAAGTA ATGGGTTGTT AATGTTGATG  
CAATACAACA CATAAAATTC TGAGGTATAA TGAATTCAT TACCCAACAA TTACAACTAC

2351  
TGTGTGTATG CAGAACCAAC TTATGTACGA GTCCATCAAT GAGCTCCAAA AAAAGGTATG  
ACACACATAC GTCTTGTTG AATACATGCT CAGGTAGTTA CTCGAGGTTT TTTTCCATAC

2401  
TAAAACCCC ATCAAAATGTA TGTCTTATAG AGAAACGTAT AGGAAAGCTA ATTAACAATC  
ATTTTGGGGA TAGTTTACAT ACAGAATATC TCITTTGCATA TCCTTTGAT TAATGTTAG

2451 2501  
GTGCGGTTTC GGAATGACA GGAGAAGGCC ATACAGGAGC AAAACAGCAT GCTTTCTAAA  
CACGGCAAG CCTTTACTGT CCTCTCCGG TATGTCCTCG TTTTGTGTA CGAAAGATTT

2551  
CAGGTAACAC ATGTCATCAT TTCTCTTTCA TCAACATGTT GTCCATTGCA TTACTGTTAC  
GTCCATTGTT TACAGTAGTA AAGAGAAAGT AGTTGTATCA CAGGTAACGT AATGACAATG

2601  
CTTCCACTGT TCTGCTCCAC ACTCCAGCC AAGCTATACC TACGATATCT TCATATCTCC  
GAAGTGACA AGACGAGGTG TGAAGTCCG TTGATATAG ATGCTATAGA AGTATAGAGG

2651  
ACTTAACTTC GGCACCATTA AATAAAATA GAAATCTTT GCAAATTTGT TTGAAATAGC  
TGAATTTAAG CCGTGGTAAT TTATTTTAT CTTTGTAGAA CGTTTAAACA AACTTTATCG

2701  
ATAGATGTTG TCTATTGATT GATATAATCA CCAGCCTGTA CGTAGATATG GTTTTGCGCT  
TATCTACAAC AGATAACTAA CTATATTAGT GGTCGGACAT GCATCTATAC CAAACAGGCA

2751 2801  
TTAGTTTATA GGTGTCCTCC GGATTGAAA TATTTTGAJA TCITTTGAAA TGTTTGTCCC  
AATCAAAATT CCACAGAGAG CCTAACTTT ATAAAACTTT AGAAAACCTT ACAAACAGGG

2851  
ATCATTTCTA CTTAGCTCAT ATCTATGTAT ATGAATATAG ACACACTCTC TAATTATAAA  
TAGTAAGAAT GAATCGAGTA TAGATACATA TACTTATATC TGTGATGAGG ATTAATATTT

2901  
ATGTTTATAAT AGTTCATTGC ATGAGTGCAA CTGTGAAAT AACTATTTGT AACCATTGCA  
TACAATATTA TCAAGTAAAG TACTCAGTTT TGATATAACA TTGTAACGTT

Fig. 6e

09869582.022807

2951  
TATATATAGT TTCTTCACTT TGAAAATTGA TGATGATAAT ATGGTTTGAA ATAAATTTGC  
ATATATATCA AAGAAGTGAA ACTTTTAACT ACTACTATTA TACCAAACCT TATTTAAACG

3001  
TGGCAGATCA AGGAGAGGGA AAAAATTCCT AGGGCTCAAC AGGAGCAGTG GGATCAGCAG  
ACCGTCTAGT TCCTCTCCCT TTTTAAAGAA TCCCGAGTTG TCCTCGTCAC CCTAGTCGTC

3051 3101  
AACCAAGGCC ACAATATGCC TCCCCCTCTG CCACCGCAGC AGCACCAAAAT CCAGCATCTT  
TTGGTCCGG TGTATACGG AGGGGGAGAC GGTGGCGTCG TCGTGGTTTA GGTCTAGGA

3151  
TACATGCTCT CTCAATCAGCC ATCTCCTTTT CTCAACATGG GGTAACAAAA AATTACTAAT  
ATGTACGAGA GAGTAGTCGG TAGAGGAAAA GAGTTGTACC CCATTGTTTT TTAATGATTA

3201  
CAGTCTTAAT TTAAGCACA TATGTTATGC AAGCTAGTTA CGTTAGGTGT TGTAATTTCA  
GTCAGAATTA AATTTCTGTG ATACAATACG TTCGATCAAT GCAATCCACA ACATTAAGT

3251  
TTGAAGTTAT AGCTGTTAGT GATGGTTACA TGATGCTAGA TTTTGAACT AGAAAACTTT  
AAGTTCAATA TCGACAATCA CTACCAATGT ACTACGATCT AAAAAGTTGA TCTTTTGAAA

3301  
ATTTTAAAC ATTATTTTAT TAACGTAGGT TAATGCAATG GTCGCCAAAC GAACAAACTT  
TAAATTTTGT TAATAAAATA AITGCAATCA ATTACGTTAC CAGCGGTTTG CTTGTTTGAA

3351 3401  
ATTAGTGTGG AAAAATGTAC ATGGAATGGT TGGCAAAAGC CTAAGTCGAC TTTTGTGTTT  
TAATCACACC TTTTACATG TACCTTACCA ACGCTTTTGG GATTGAGCTG AAAACAACAA

3451  
GTTGCTCTAT GTGTTAAGT ACAATTTTAG TTTGTAGAT AAATGAAATT AATATATCTT  
CAACAGATA CACAAATTC TGTAAAACT AAACAATCTA TTTACTTTAA TTATATAGAA

3501  
TGACATTTCA CAATGGACTG ATATTTGATT TTCTTTGTT GTACGGTGAA ACATATGATT  
ACTGTAAAGT GTTACCTGAC TATAAACTAA AAGGAAACAA CATGCCACTT TGTATACTAA

3551  
ACATATGCAC TTTTATATAT ATCCTATGTA TGATTGTGAA TGCAGTGGTC TGTATCAAGA  
TGTATACGTG AAAGTATATA TAGGATACAT ACTAACACTT ACGTCACCAAG ACATAGTTCT

3601  
AGATGATCCA ATGGCAATGA GGAGGAATGA TCTCGAAGT ACTCTTGAAC CCGTTTACAA  
TCTACTAGGT TACCGTTACT CTTCTTACT AGAGCTTGAC TGAGAACTTG GGCAAAATGT

3651  
CTGCAACCTT GGCTGCTTCG CCGCATGA  
GACGTTGGAA CCGACGAAGC GGCCTACT

0969582.02802

Fig. 6f

Fig. 9

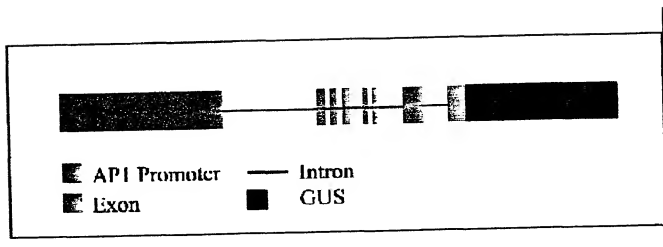


Fig. 7

Sequence Range: -140 to 1080

GAATCTGGCA CGAGAACTTT CCTAATTGGT TCATACCAAA GTCTGAGCTC TTTCTTATAT<sup>-91</sup>  
 CTCTCTTGTA GTTTCCTATT GGGGCTCTTT GTTTTGTTTG GTTCTTTTAG AGTAAGAAGT<sup>-41</sup>  
 TTCTTAAAAA AGGATCAAAA<sup>10</sup> ATGGGAAGGG GTAGGGTTCA ATTGAAGAGG ATAGAGAACA  
 M G R G R V Q L K R I E N  
 AGATCAATAG ACAAGTGACA<sup>60</sup> TTCTCGAAAA GAAGAGCTGG TCTTTTGAAG AAAGCTCATG  
 K I N R Q V T F S K R R A G L L K K A H  
 AGATCTCTGT<sup>110</sup> TCTCTGTGAT GCTGAAGTTG CTCTTGTTGT CTCTCCCAT AAGGGGAAC<sup>160</sup>  
 E I S V L C D A E V A L V V F S H K G K  
 L T T C G A A T A C T C C A C T G A T T C T T G T A T G G A G A A G A C T A T G A G A G T A C T<sup>210</sup>  
 L F E Y S T D S C M E K I L E R Y E R Y  
 C T T A C G C C G A A A G A C A G C T T A T T G C A C C T G A G T C C G A C G T C A A T A C A A C T G S T C G A T G G<sup>260</sup>  
 S Y A E R Q L I A P E S D V N T N W S M  
 A G T A T A A C A G G C T T A A G G C T A A G A T T G A G C T T T T G G A G A G A A A C C A G A G G C A I T A T C T T G<sup>310</sup>  
 E Y N R L K A K I E L L E R N Q R H Y L  
 G G G A A G A C T T G C A A G C A A T G A G C C T A A A G A G C T C A G A A T C T G A C A G C A G C A G C T T G A C A<sup>360</sup>  
 G E D L Q A M S P K E L Q N L E Q Q L D  
 C T G C T C T T A A G C A C A T C C G C A C T A G A A A A A A C C A A C T T A T G T A C A G A G T C C A T C A A T G A G C<sup>410</sup>  
 T A L K H I R T R K N Q L M Y E S I N E  
 T C C A A A A A A A G G A A G G C C A T A C A G G A G C A A A A C A G C A T G C T T T C T A A C A G A T C A A G G<sup>510</sup>  
 L Q K K E K A I Q E Q N S M L S K Q I K  
 A G A G G G A A A A A A T T C T T A G G G C T C A A C A G G A G C A G C A G T G G G A T C A G C A A C C A A G C C A E A<sup>560</sup>  
 E R E K I L R A Q Q E Q W D Q Q N Q G H  
 A T A T G C C T C C C C C T C G C C A C G C A G C A C C A A A T C C A G C A T C C T T A C A T G C T C T C T C<sup>610</sup>  
 N M P P P L P P Q Q Q H Q I Q H P Y M L S  
 A T C A G C C A T C T C T T T T C T C A A C A T G G G T G T C T G A T C A A G A A G A T G A T C C A A T G G C A A<sup>660</sup>  
 H Q P S P F L N M G G L Y Q E D D P M A  
 T G A G G A G G A A T G A T C T G A A C T G A C T T T G A A C C C G T T T A C A C T G C A A C T T G G C T G C T<sup>710</sup>  
 M R R N D L E L T L E P V Y N C N L G C  
 T C G C G C A T G A A G C A T T T C C A T A T A T A T A T T T G T A A T C G T C A A C A A T A A A A C A G T T T<sup>810</sup>  
 F A A \*  
 G C C A C A T A C A T A T A A T A G T G G C T A G G C T C T T T C A T C C A A T T A A T A T A T T T T G C A A A T<sup>860</sup>  
 G T T C G A T G T C T T A T A T C A T C A T A T A A A T T A G C A G G C T C C T T C T C T T T T G T A A T T<sup>910</sup>

Fig. 8a

960  
GATAAGTTTA TTGCTTCAA TATGGAGCAA AATTGTAATA TATTGAAGG TCAGAGAGAA  
1010  
TGAACGTGAA CTTAANTAGAA AAAAAAAAAA AAAAAAAAAA AAAAAAAAAA AAAAAAACC  
1060  
CGACGTAGCT CGAGGAATTC

Fig. 8b

09869582-022802

Sequence Range: -346 to 1028

```

-297
GAATTCGCGA TTCACAAAAA CTTTCTTCA GATTACAAT CTCATCACAA CCCTTCAAAA

-247
AGAGAAAAGA TCTAAGAAT AAACAAGAGC CCTAATATCA AATCACAAAC AAAAAACCA

-197
AAGAAAGCTA ATTAAGTTT TCTCTCTAGC TATTCCTCTT CTTTCTTGT TCTTGAAAC

-147
TAGSGTTTAC TTCACAAAAA GATAAGATCT TTCCCCAGAA AAAGCAATAC CCAAGTCATG

-97
TTTCTGTGTG TCTGTATATA GATAAAACAT TACATACCTT AATAAGGTTA CACAAATAGC

-47
TATAAAAGAG GAAAAATAAG ATAGGGATT TTTGGGTGA GGAAGATGG GAAGAGGAAG
M G R G R>

54
AGTAGAGCTC AAGAGSATAG AGACAAAAAT CAACAGACAA GTGACGTTTG CTAAACGTAG
V E L K R I E N K I N R Q V T F A K R R>

104
AAATGGTTTG CTGAAAAAAG CTTATGAGCT TTCTGTTCTC TGCAGTCTGT AAGTCTCTCT
N G L L K K A Y E L S V L C D A E V S L>

154
CATCGTCTTC TCCAACGCTG GCAAGCTCTA CGAGTTCTGC AGCACCTCCA ACATGCTCAA
I V F S N R G K L Y E F C S T S N M L K>

204
GACACTGGAA AGGTATCAGA AGTGTAGCTA TGGCTCCATT GAAGTCAACA ACAAACCTGC
T L E R Y Q K C S Y G S I E V N N K P A>

254
TAAAGAGCTT GAGAACAGCT ACAGAGAGTA CTTGAAGCTG AAAGGTAGAT ATGAAAATCT
K E L E N S Y R E Y L K L K G R Y E N L>

304
GCAACGTCAG CAGAGAAATC TTCTTGAGAG GGATCTTGGG CCTCTGANTT CAAAGGAGCT
Q R Q Q R N L L G E D L G P L N S K E L>

354
AGAGCAGCTT GAGCGTCAAC TAGACGGCTC TCTGAAGCAA GTTCGCTGCA TCAAGACACA
E Q L E R Q L D G S L K Q V R C I K T Q>

404
GTATATGCTT GACCAGCTCT CTGACTTCA AGGTAAGGAG CATACTTGC TTGATGCCAA
Y M L D Q L S D L Q G K E H I L L D A N>

454
CAGAGGTTTG TCAATGAAGC TGAAGATAT GATCGGCGTG AGACATCACC ATATAGGAGG
R A L S M K L E D M I G V R H H H I G G>

504
AGGATGGGAA GGTGTGTATC AACAGAATAT TGCCTATGGA CATCCTCAGG CTATCTTCA
G W E G G D Q Q N I A Y G H P Q A H S Q>

554
GGGACTATAC CAATCTCTTG AATGTGATCC CACTTTGCAA ATTGGATATA GCCATCCAGT
G L Y Q S L E C D P T L Q I G Y S H P V>

604
GTGCTCAGAG CAAATGGCTG TGACGGTGCA AGGTCAGTCC CAACAAGGAA ACGGCTACAT
C S E Q M A V T V Q G Q S Q Q G N G Y I>

```

Fig. 10a

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754  
CCCTGGCTGG ATGCTGTGAG CGATACTTCT TCCCCCAATA AAGATCTTAA GCAAGTACTG  
P G W M L \*  
804  
GTGGGGTCTT CGTGGTGTGA TCTTAGATCT TATGCATATG AATAATAATG TTATTGCACA  
854  
AGACTTTTGC TTTTGTAGAC ACAAGTGGCT ATAGCTGTAA TAGCCTTCAA CATCTCTCTT  
904  
CTGTTTCAGG ATTTGTTTGT GCCTATTGTA ATTGCTTATA TATGTATGGT TTGTATAATG  
954  
1004  
TGTGAAATGT TAACATCGAC CATGTCTCAT CTGGTGAAAA AAAAAAAAAA AAAA

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Fig. 10b

Sequence Range: -395 to 908

GAATTCGCGC CCTCACACAT TTCTTATCTT TTGCTCTCAA TAGATTCCAT TGATTCAAAA -346  
 CAAAATTITTC ATTAAGATTT CACAACCTCC ACACACTTCC AAACACAATT AAAGAGAGGA -296  
 AAAAGAATCA ATAAACCTAT AAATAAAAAA TCAGACAAC AGAAGTTTCC TCTTCTCTT -246  
 CCTTAAGCTA GTACCTTTTG TTCTTGAAAT TAGGGTTAAT TTCTTTTTTC CAAATACCAT -196  
 CAATTCTCCA GACCATAAAA ACTCAAAAAG ATCAGATCTT TCCTCTGAAA AAGAGATACC -146  
 CAACTTATGT TTTTGTGTGT CTGTATATAG ATAAACATTA CATACCCATA TTTGTGTATA -46  
 GACATAAAAA GTGGAATTA AGGTAACAAA AAGAAATGGG AAGAGGAAGA GTAGAGCTGA 5  
 M G R G R V E L>  
 AGAGSAGAGA GAACAAATC AACAGACAAG TAACGTTTGC AAAGCGTAGG AACGGTTTGT 55  
 K R I E N K I N R Q V T F A K R R N G L>  
 TGAAGAAGC TTATGAATTG TCTGTTCTCT GTGATGCTGA AGTTGCTCTC ATCATCTTCT 105  
 L K K A Y E L S V L C D A E V A L I I F>  
 CCAACCGTGG AAAGCTCTAT GAGTTTGTGA GCTCCTCAAA CATGCTCAAG ACACITGATC 155  
 S N R G K L Y E F C S S S N M L K T L D>  
 GGTACCAGAA ATGCAGCTAT GGATCCATTG AAGTCAACAA CAAACCTGCC AAAGAACTTG 255  
 R Y Q K C S Y G S I E V N N K P A K E L>  
 AGAACGCTA CAGAGAATAT CTGAAGCTTA AGGOTAGATA TGAGAACCTT CAACGTCAAC 305  
 E N S Y R E Y L K L K G R Y E N L Q R Q>  
 AGAGAAATCT TCTTGGGGAG GATTTAGGAC CTTTGAATTC AAAGGAGTTA GAGCAGCTTG 355  
 Q R N L L G E D L G P L N S K E L E Q L>  
 AGCGTCAACT GGACGGCTCT CTCAAGCAAG TTGCGTCAAT CAAGACACAG TACATGCTTG 405  
 E R Q L D G S L K Q V R S I K T Q Y M L>  
 ACCAGCTCTC GGATCTTCAA AATAAAGAGC AATGTGTGCT TGAAACCAAT AGAGCTTTGG 455  
 D Q L S D L Q N K E Q M L L E T N R A L>  
 CAAAGAAGCT GGATGATATG ATTGTGTGTA GAAGTCATCA TATGGGAGGA TGGGAAGGCG 555  
 A M K L D D M I G V R S H H M G G W E G>  
 GTGAACAGAA TGTACCTTAC GCGCATCATC AAGCTCAGTC TCAGGACTA TACCAGCCTC 605  
 G E Q N V T Y A H H Q A Q S Q G L Y Q P>  
 TTGAATGCAA TCCAACCTCG CAAATGGGGT ATGATAATCC AGTATGCTCT GAGCAATCA 655  
 L E C N F T L Q M G Y D N P V C S E Q I>

Fig. 11a

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705  
CTGCGACAAC ACAAGCTCAG GCGCAGCCGG GAAACGGTTA CATTCCAGGA TGGATGCTCT  
T A T T Q A Q A Q P G N G Y I P G W M L>  
755  
GAGAATCATG TACTGTGATG AGCTCACCC ACAAAGACC TTATATATAT ATAAAGTATA  
805  
GATACAAGAC TTGGATTTGT AGACATAAGT GGCTAATATA ATGGTCCTGA GGATCTTCTA  
905  
GACATTTGTA TCCTTTGGGA ATCCTTGCTT ATATTAAGAA TTC

Fig. 11b

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